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REMARKS

The Amendments to the Specification are provided for the correction of errors of a clerical nature and to ensure correspondence between the Specification and Formal Drawings filed herewith.

The Commissioner is authorized to charge any fee deficiencies to Deposit Account No. 16-1340.

Respectfully submitted,

Dated: April 29, 2004

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Thomas J. Perkowski, Esq.
Dated: April 29, 2004

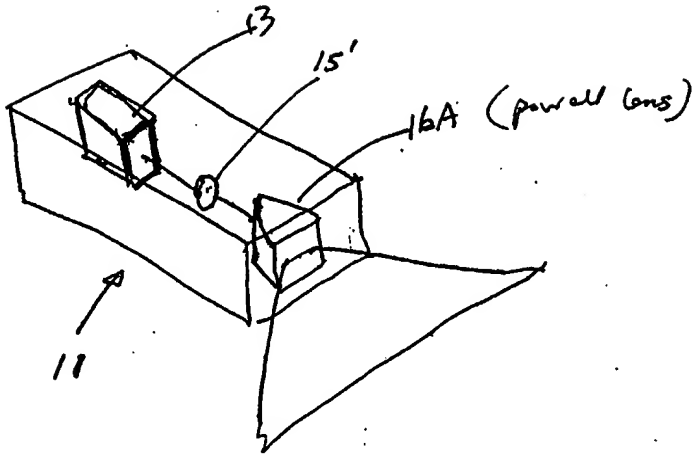


FIG. 1G.16A

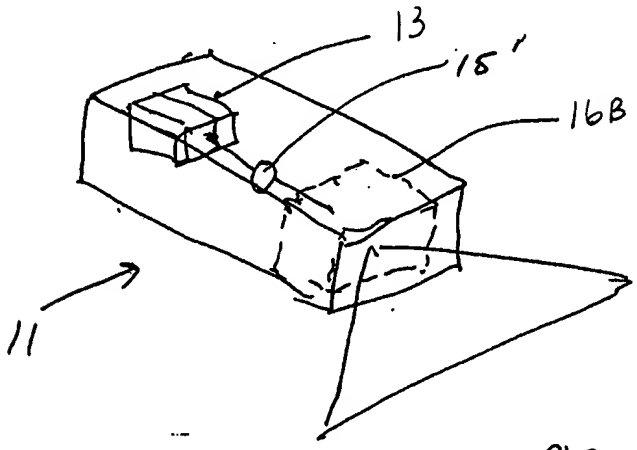
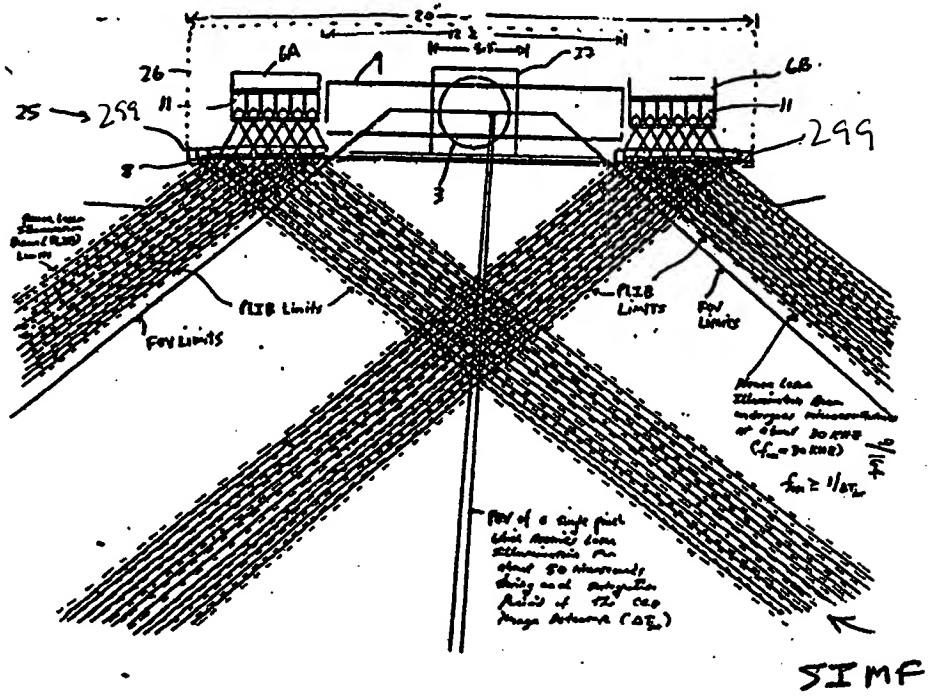


FIG. 1G16B

· plan of powell lens



Path to object illumination

FIG. 1I 20A

Sixth Generalized Method of Reducing Speckle-Noise Patterns at Image Detection Array of the IFD Subsystem

(SIMF)

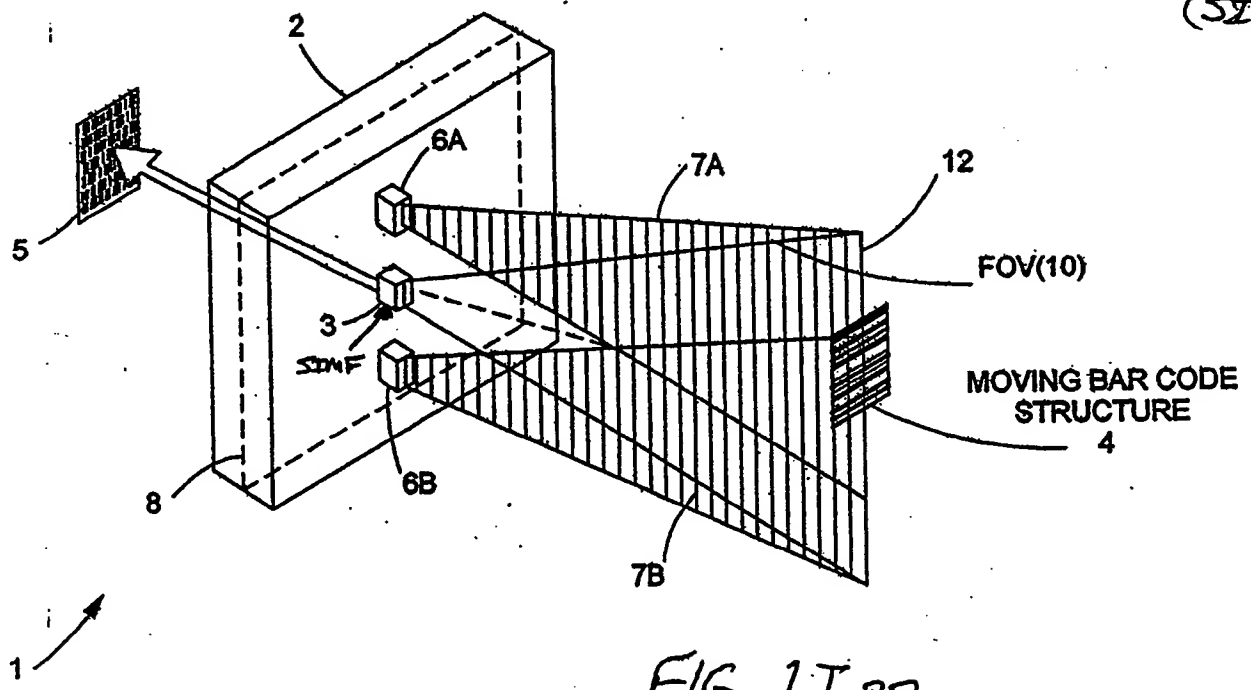


FIG. 11 22

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EIGHTH 71/395

EIGHT GENERALIZED METHOD OF REDUCING THE SPECKLE PATTERN NOISE OBSERVED IN PLIIM-BASED IMAGING SYSTEMS

A: Use a PLIIM-BASED Imager to produce a series of consecutively captured digital images of an object over a series of photo-integration time periods of the PLIIM-Based Imager, wherein each digital image of the object includes a substantially different speckle noise pattern produced by natural oscillatory micro-motion and/or forced oscillatory micro-movementof the Imager relative to the object during operation of the PLIIM-Based Imager.

B: Store the series of consecutively captured digital images of the object in buffer memory within the PLIIM-Based Imager.

C: Add relatively small (e.g. 3x3) windowed image processing filters to the additively combine and average the pixel data in the series of consecutively captured digital images so as to produce a reconstructed digital image having a speckle noise pattern with reduced RMS power.

FIG. 1124D

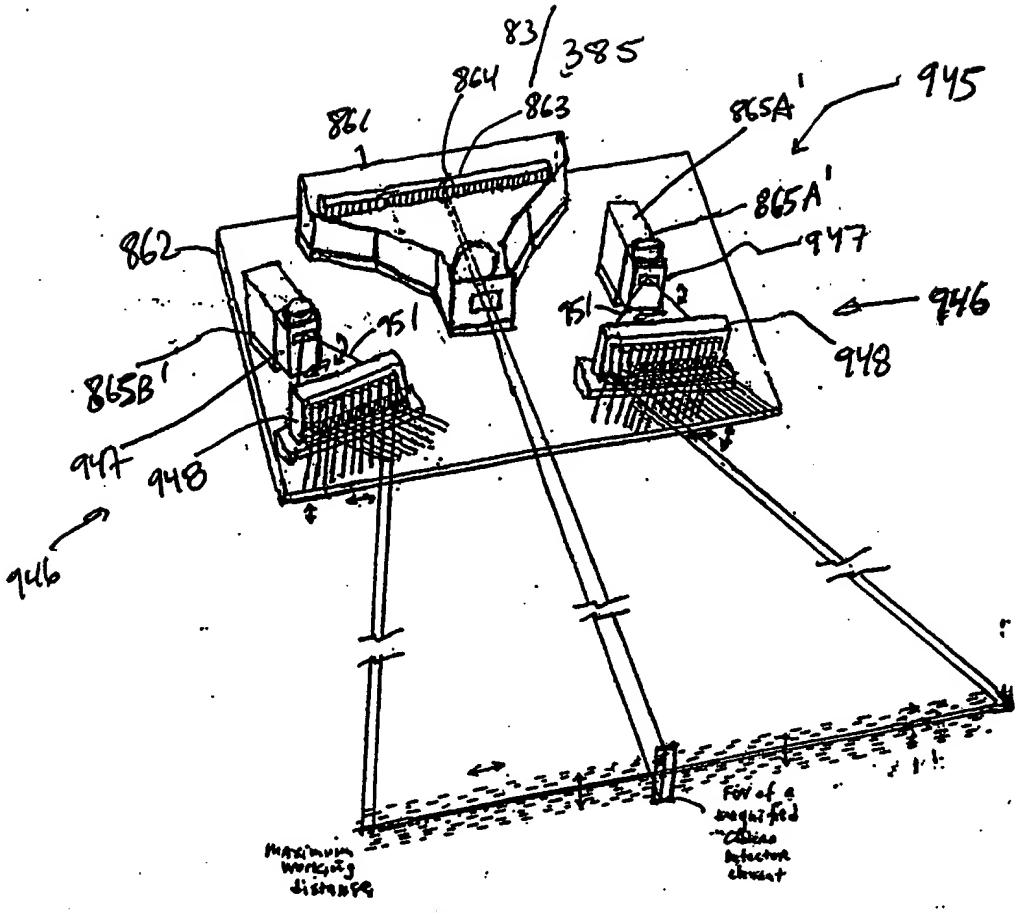

FIG.1I25I1

Lateral and Transverse Micrascillation of PLIB

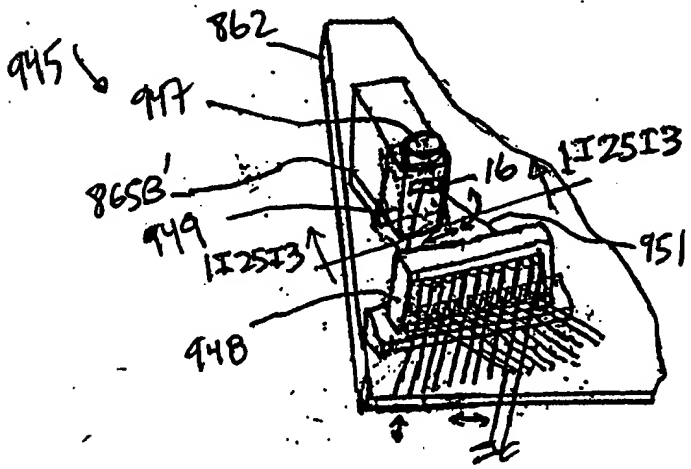

FIG.1I25I2

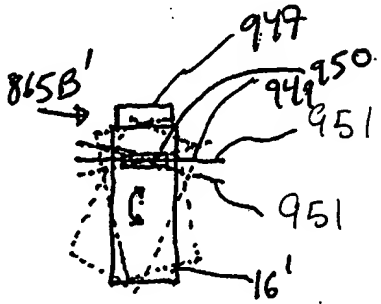

FIG.1I25I3

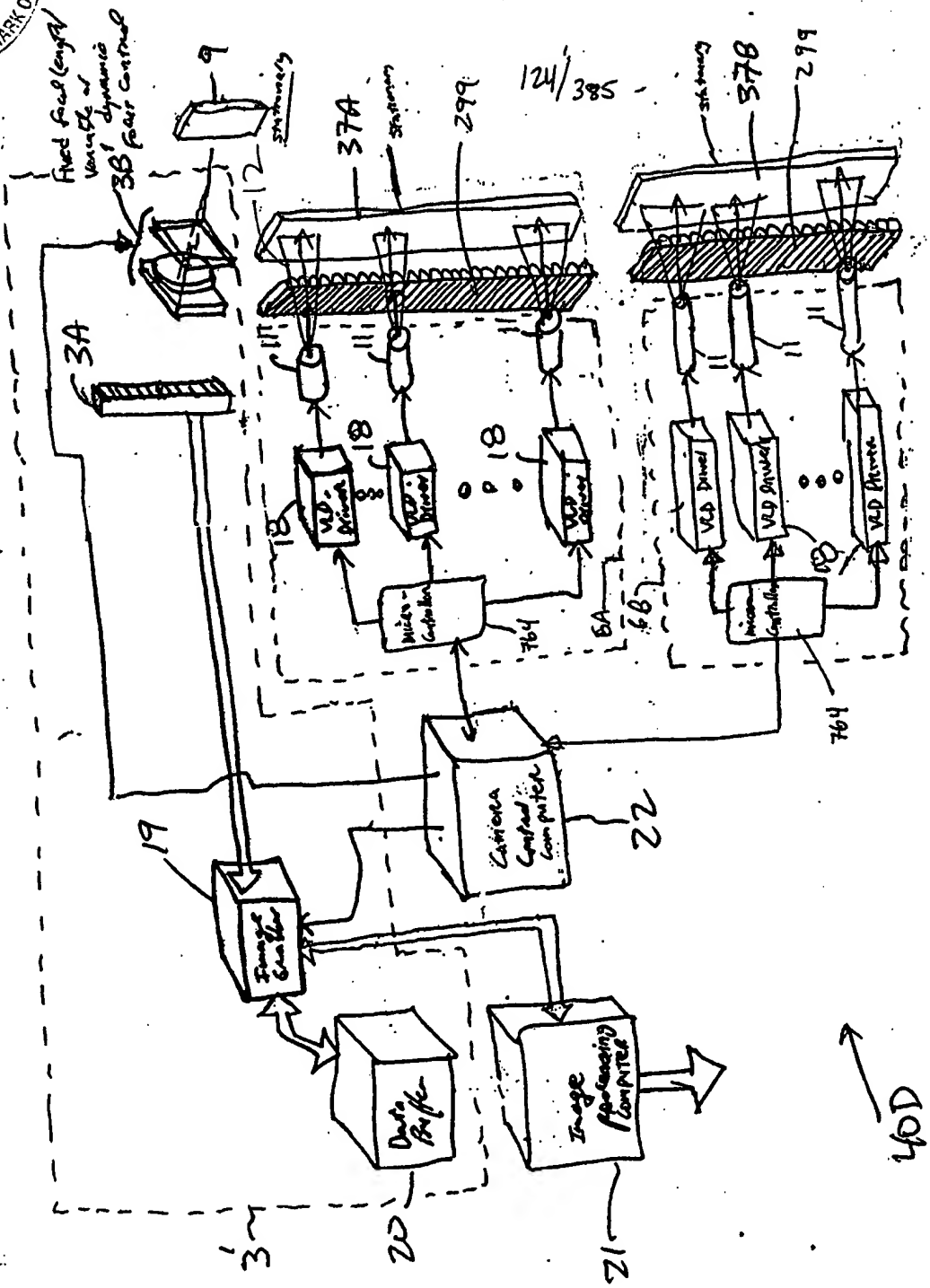

FIG 2F2

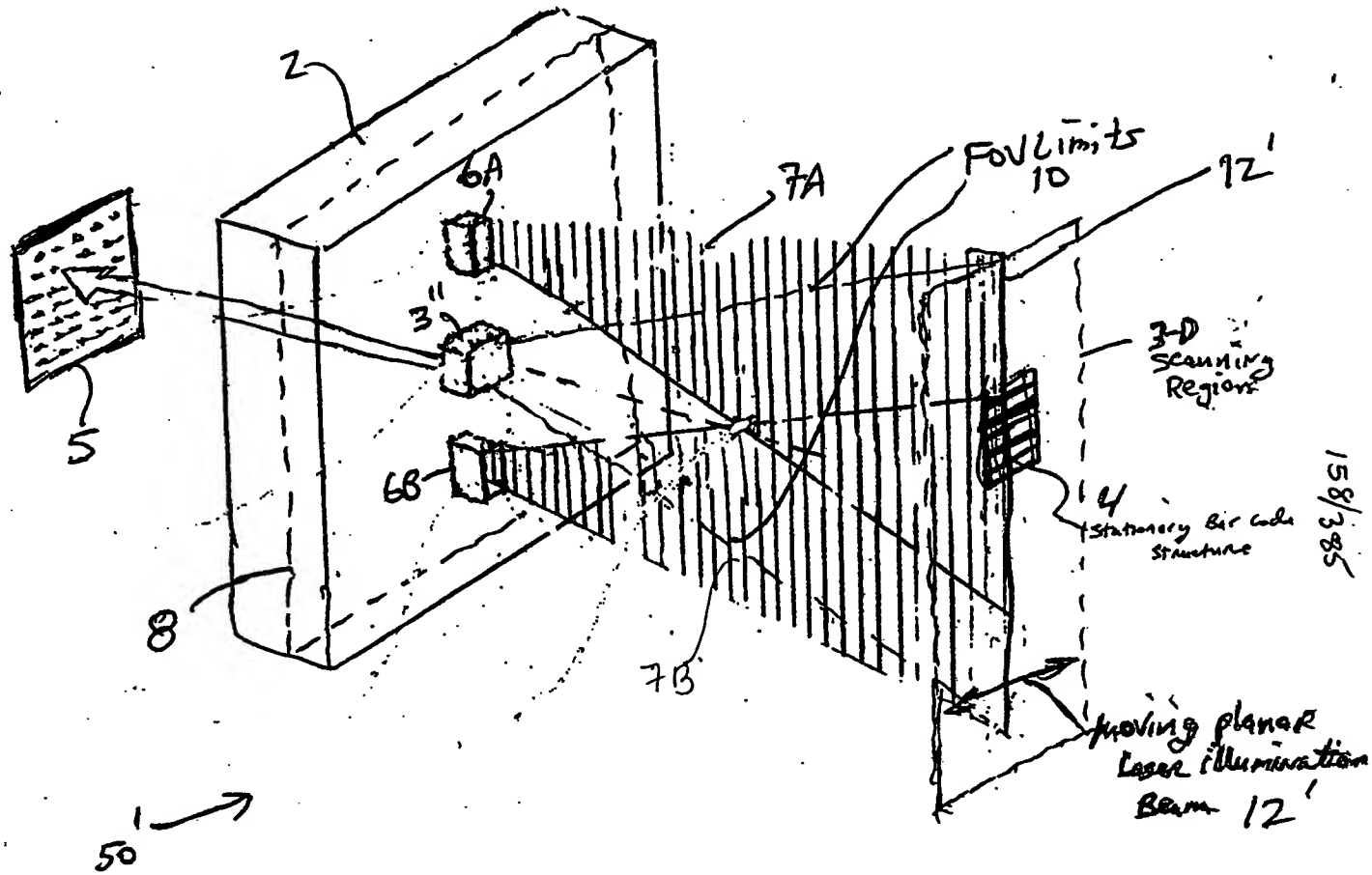

FIG. 3J1

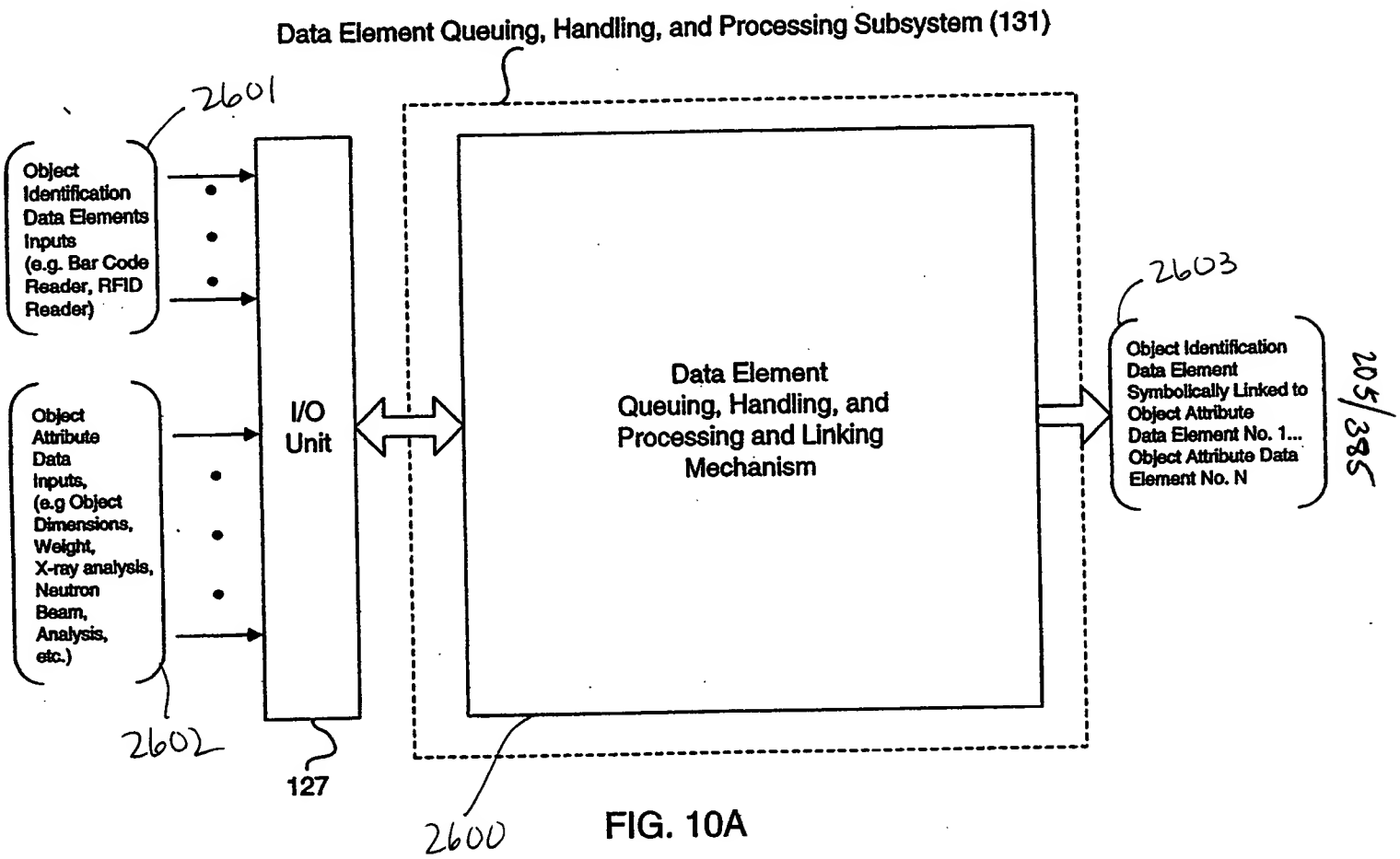

FIG. 10A

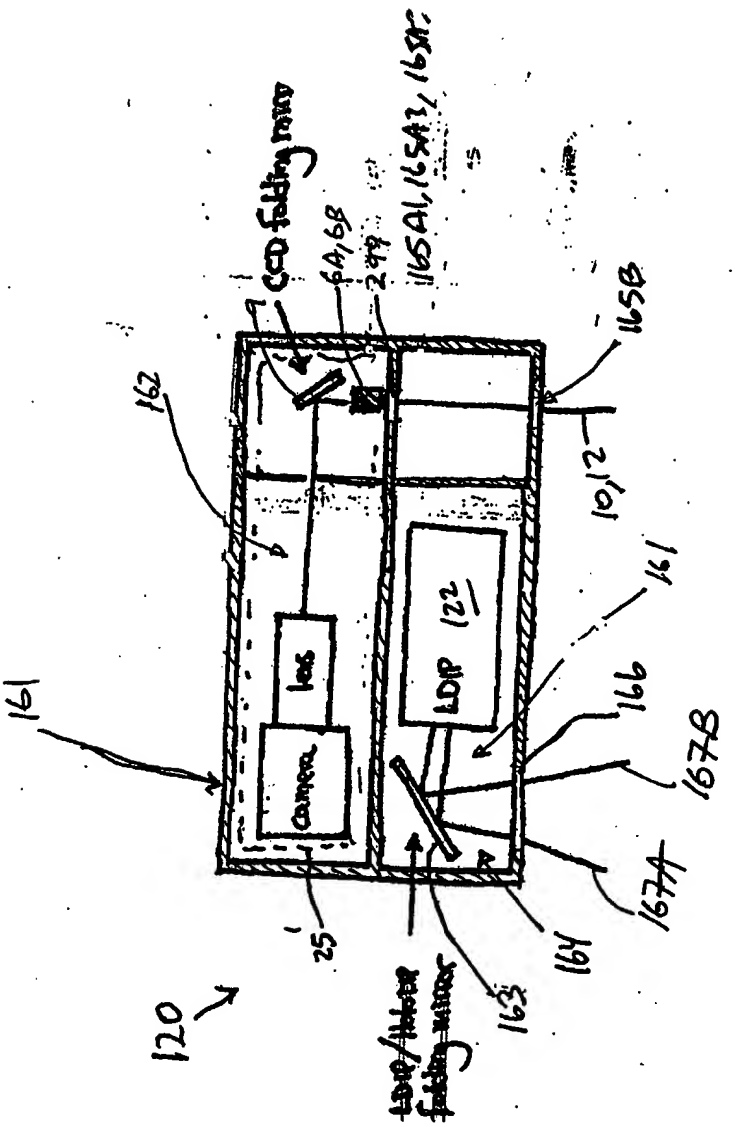

FIG. 12B

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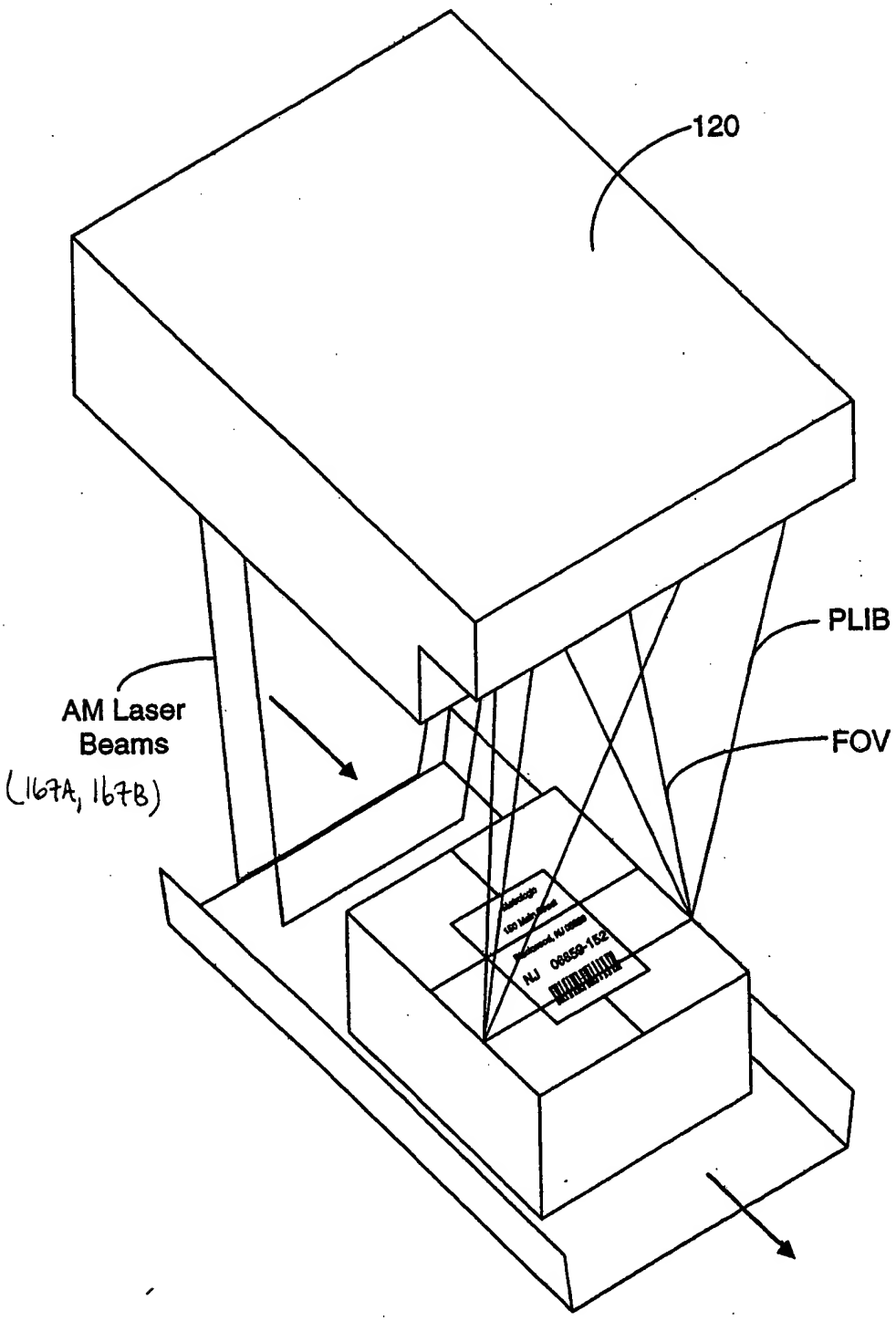

FIG. 13A

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LDIP Real Time Package Edge Detection

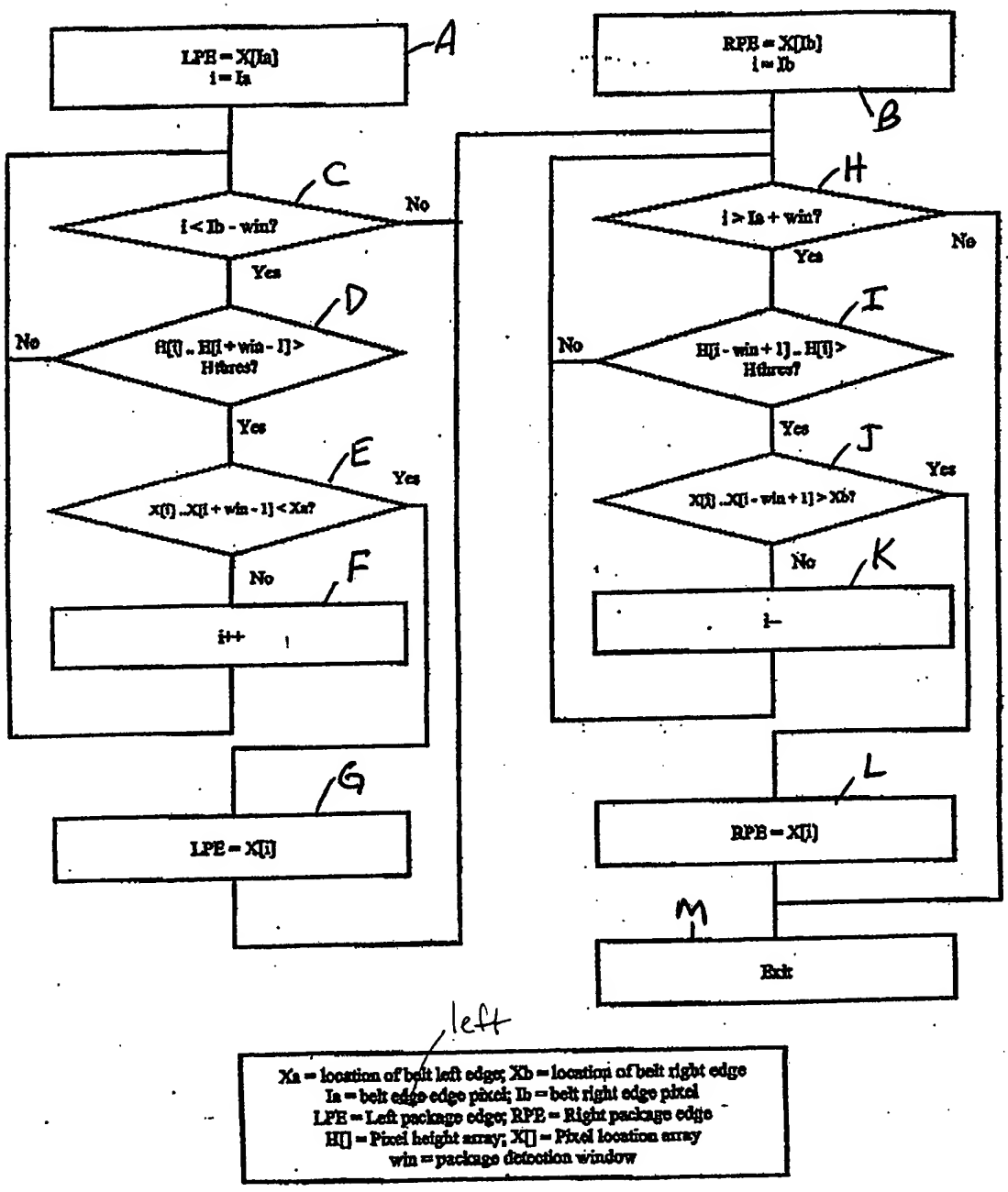

FIG. 16

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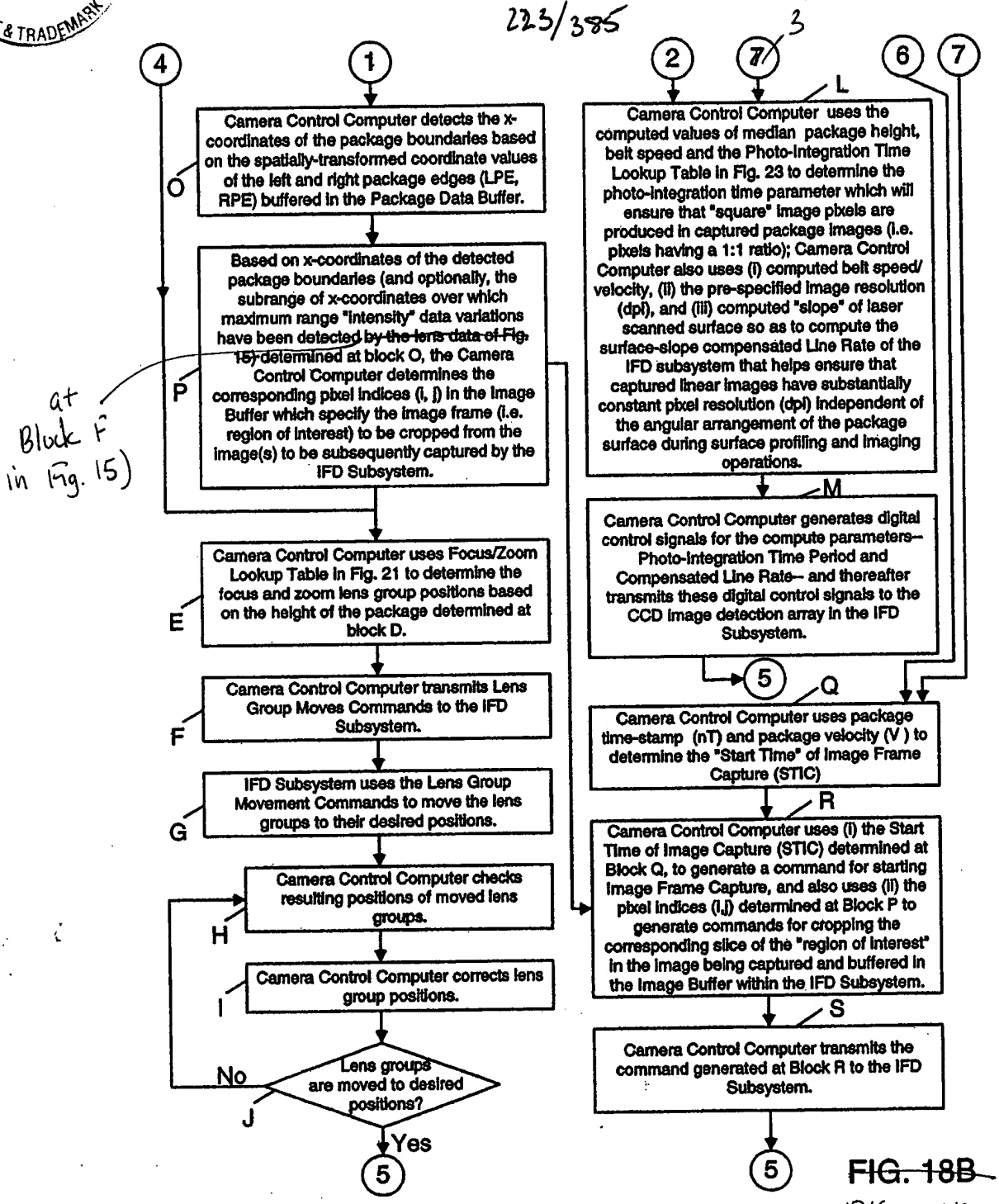

~~FIG. 18B~~

FIGS. 18B-1 and 18B-2

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METHOD OF COMPUTING OPTICAL OUTPUT POWER FROM ~~CASE~~ LASER DIODES IN PLANAR LASER ILUMINATION ARRAY (PLIA) FOR CONTROLLING CONSTANT WHITE LEVEL IN IMAGE PIXELS CAPTURED BY PLIIM-BASED LINEAR IMAGER

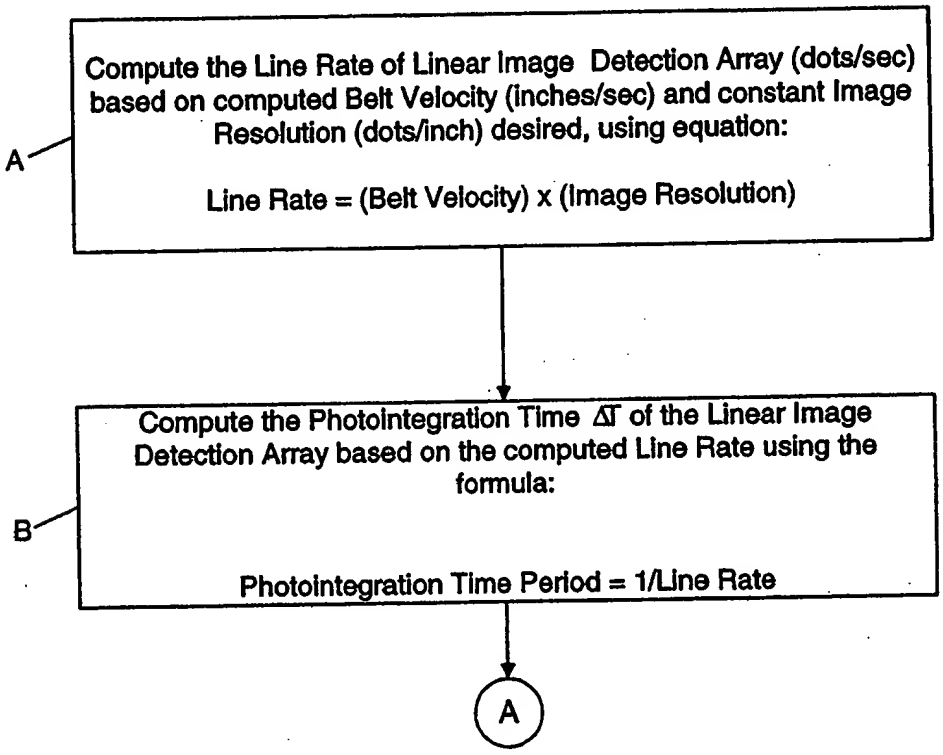

FIG. 18C1

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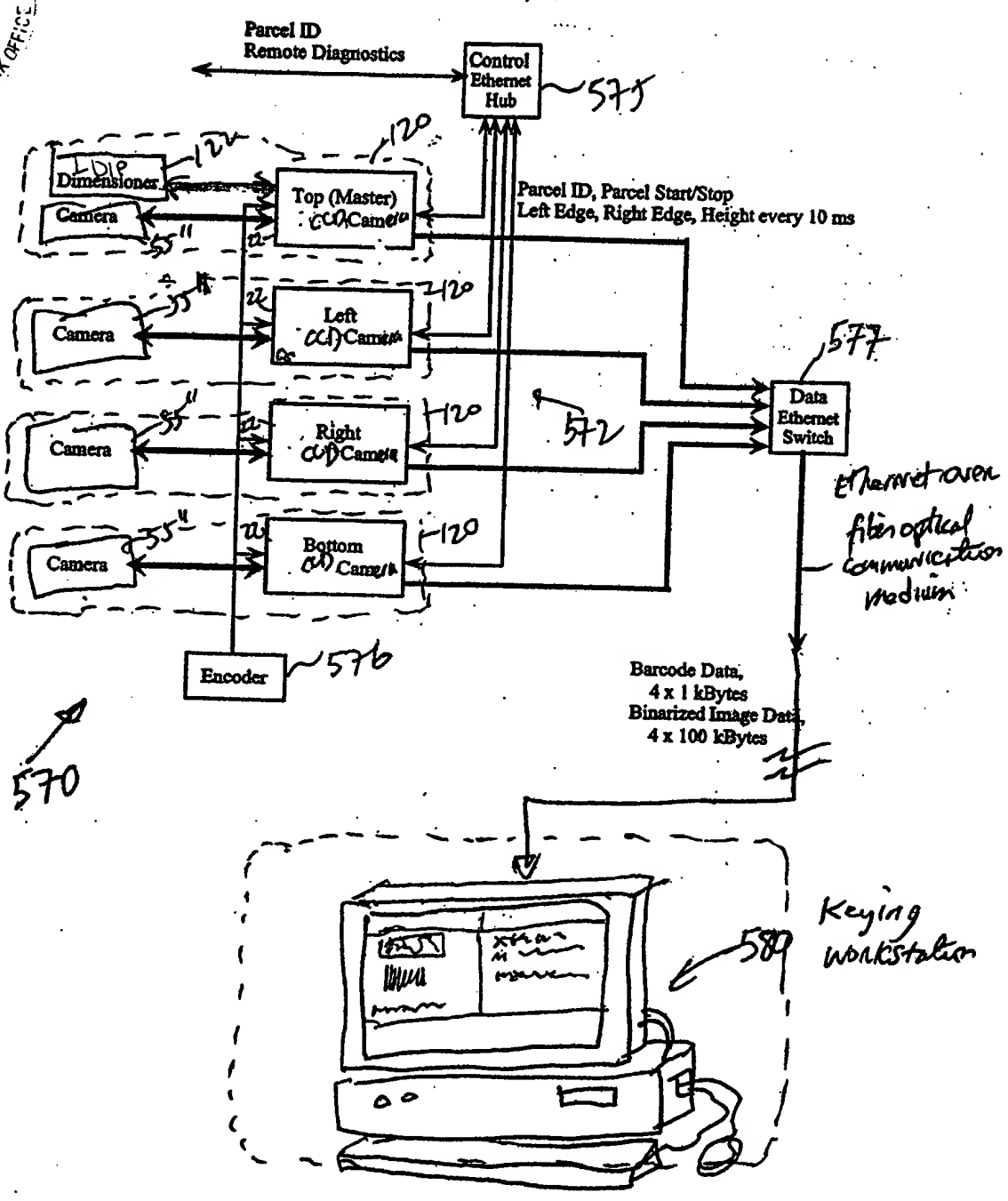


FIG. 29

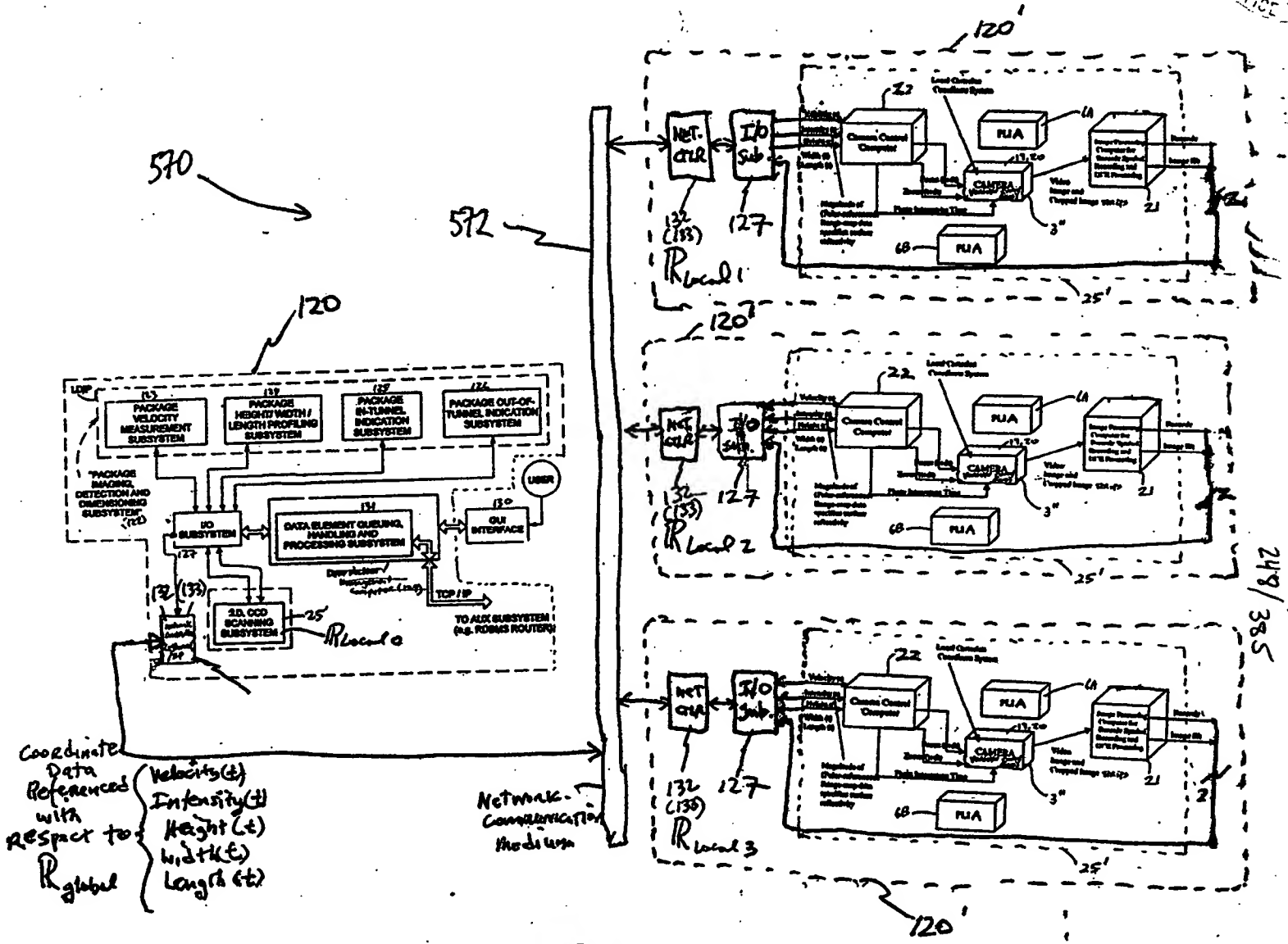


FIG 30

FIGS. 30-1 through 30-4

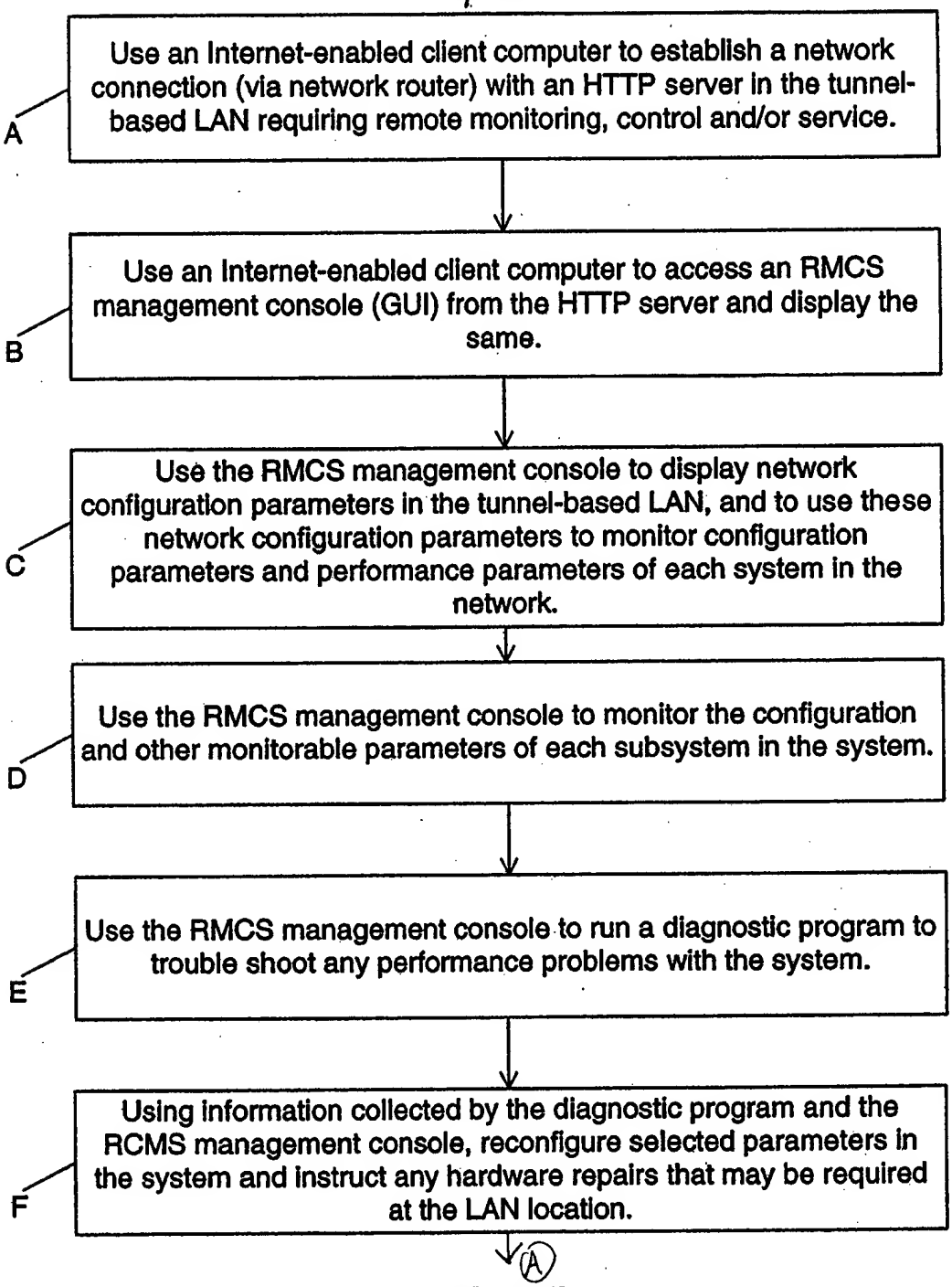


FIG. 30D1

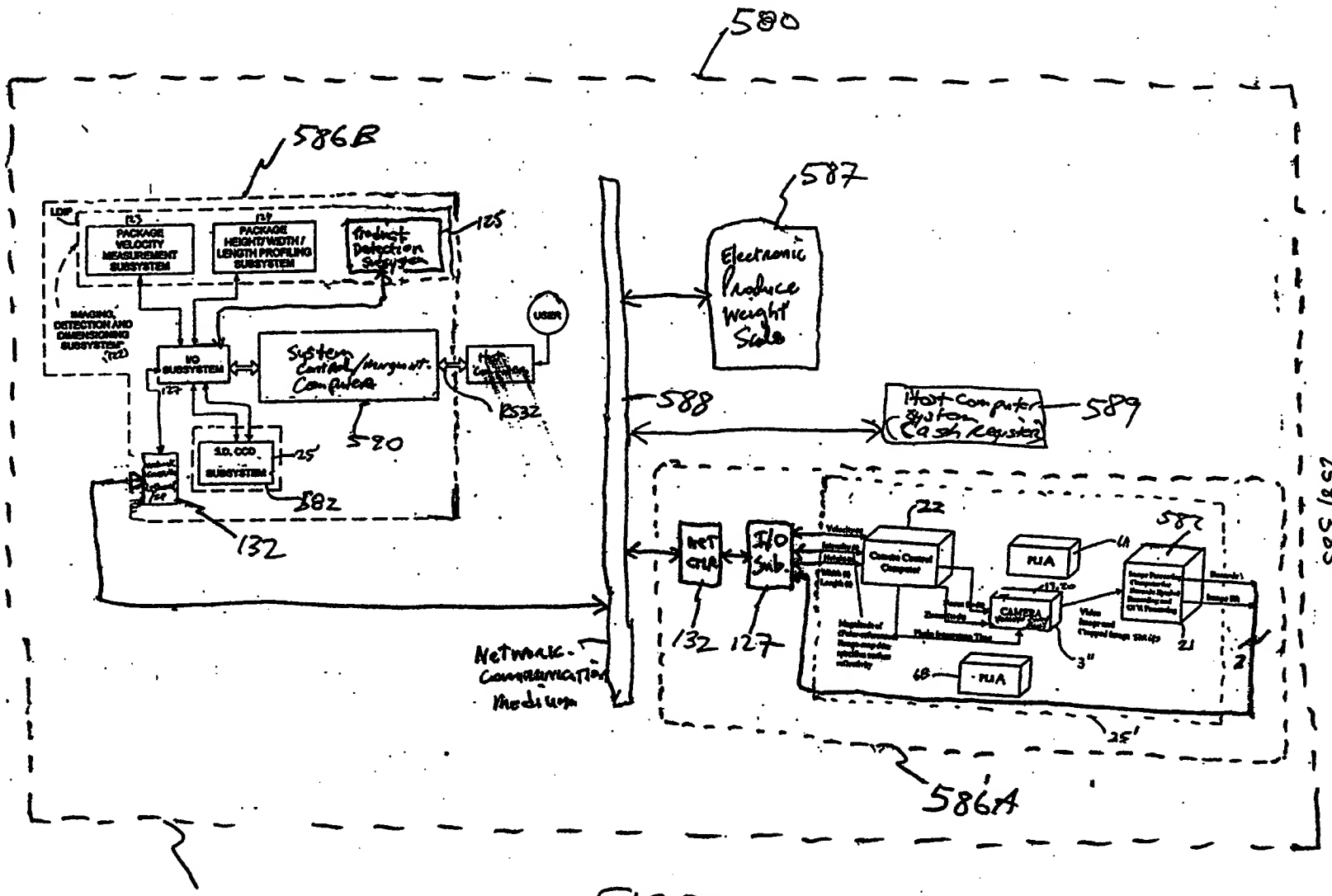


FIG. 33C

FIGS. 33C1 and 33C2

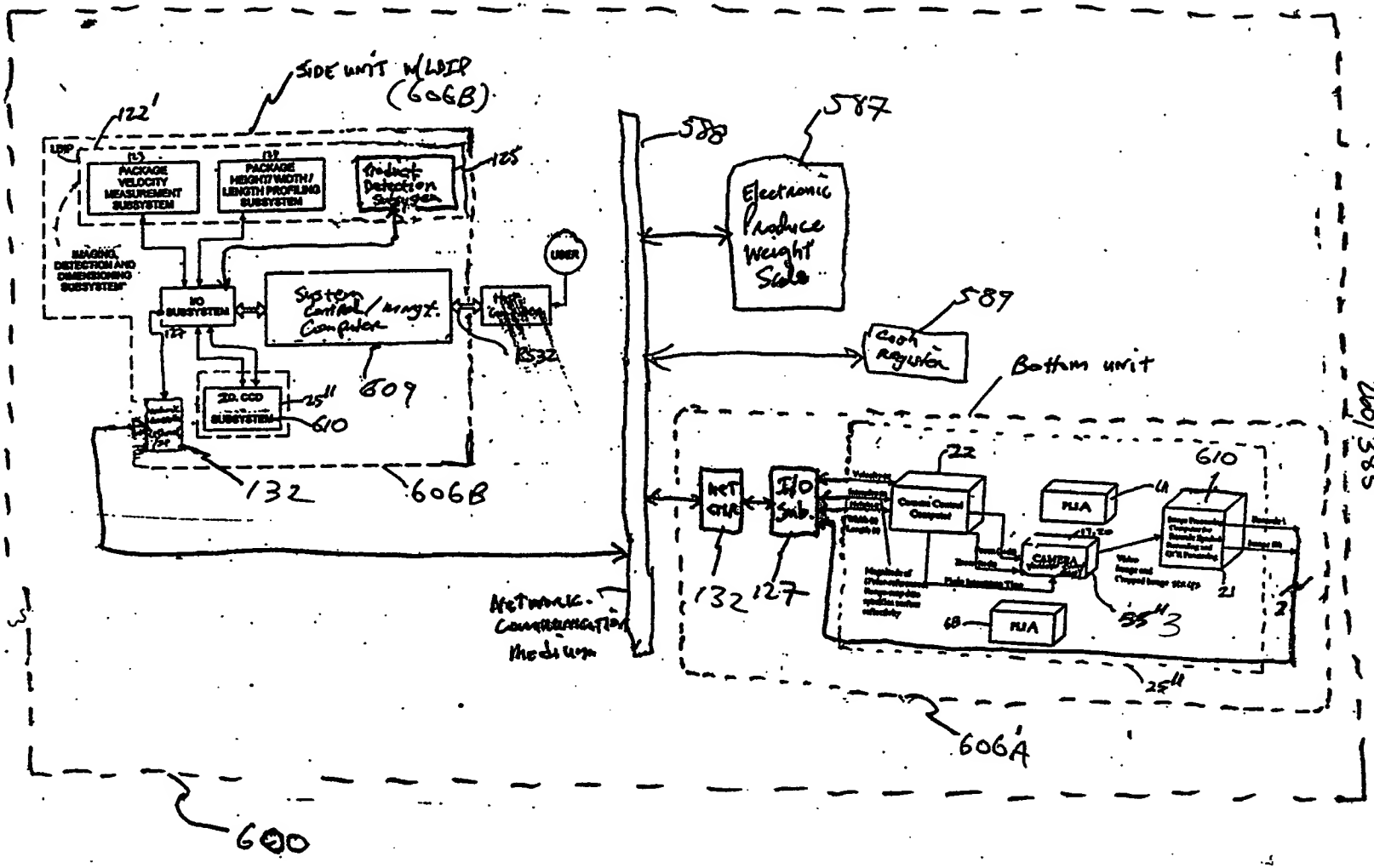


FIG. 34C

FIGS. 34C1 and 34C2

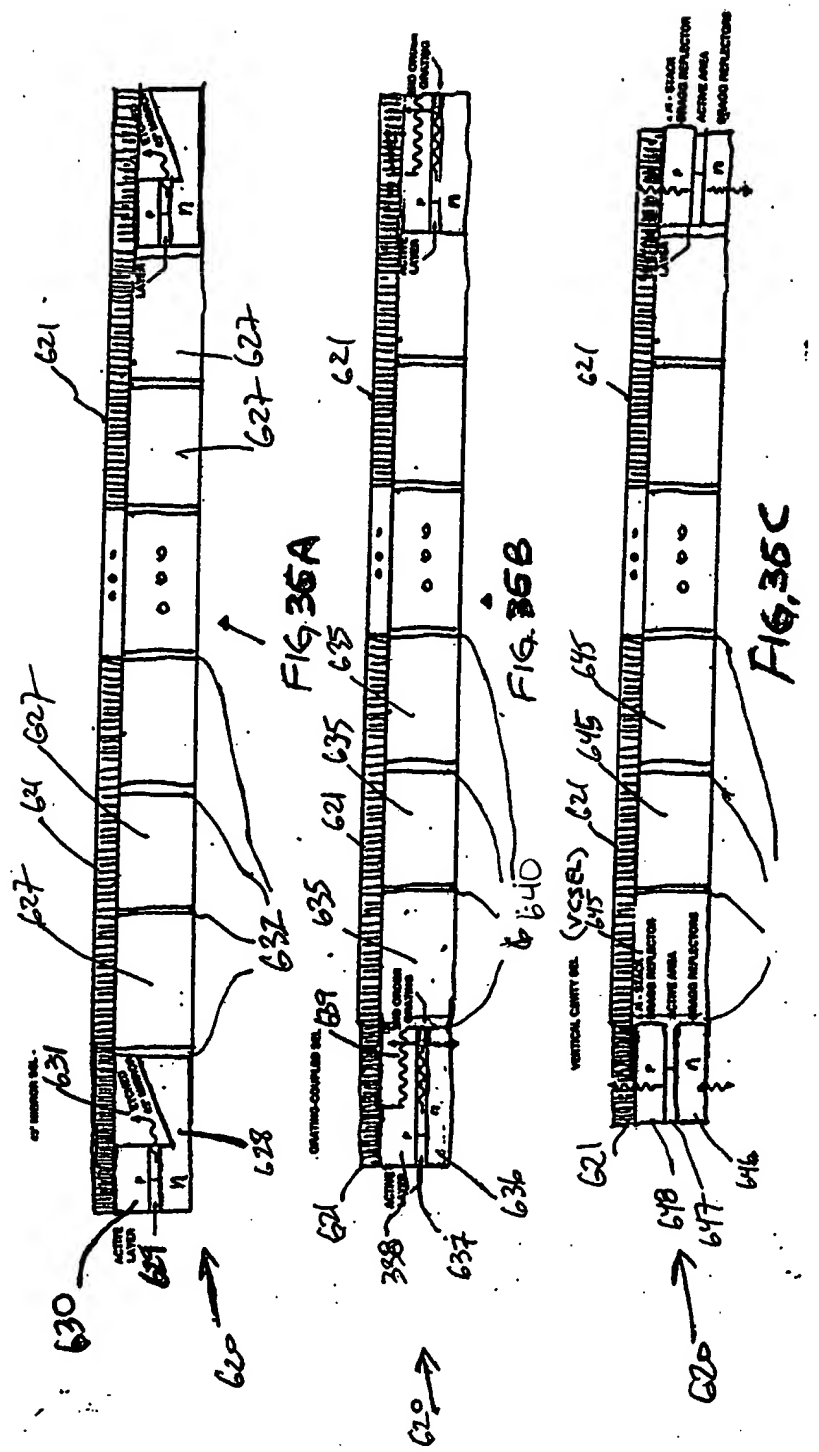


FIG. 36A

FIG. 36B

FIG. 36C

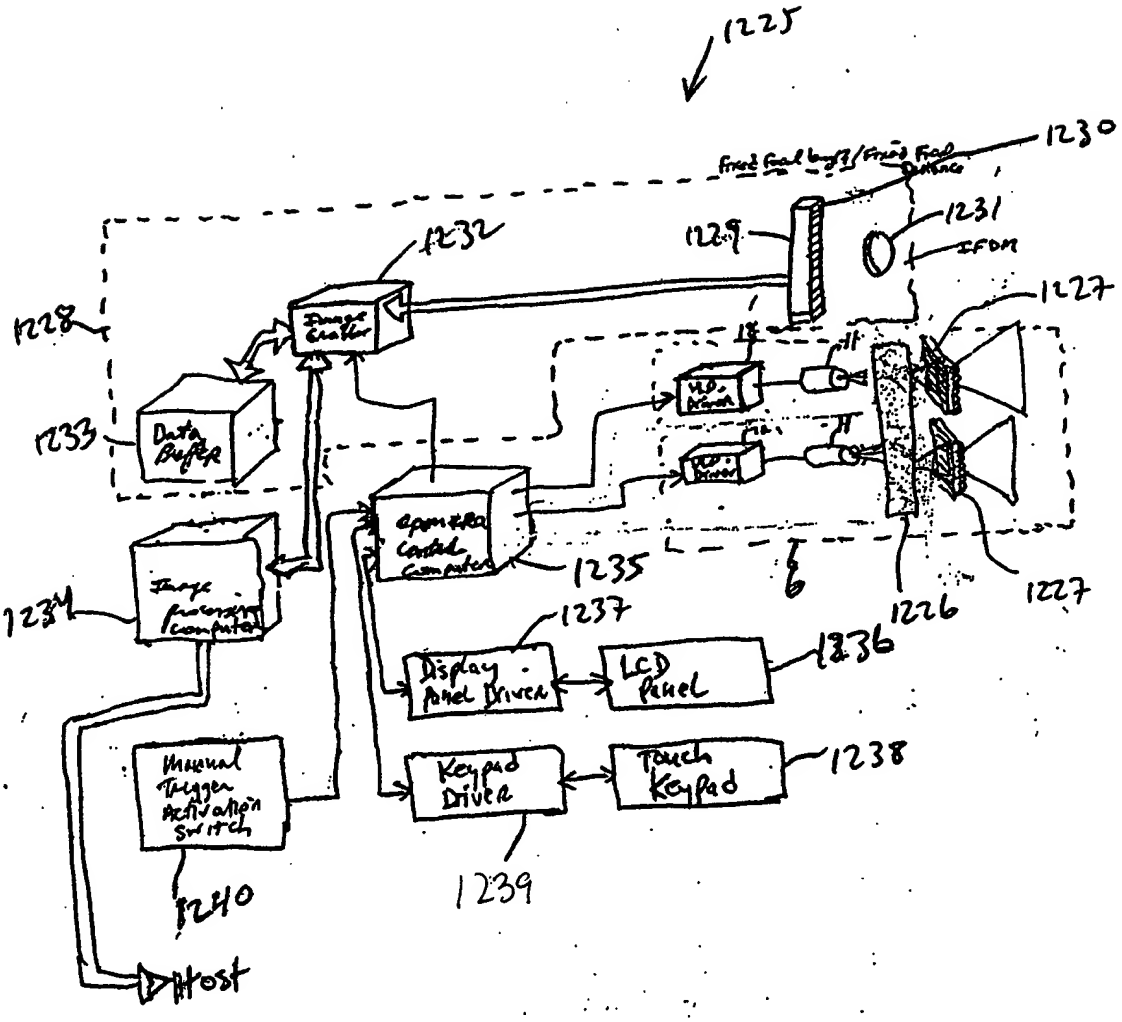
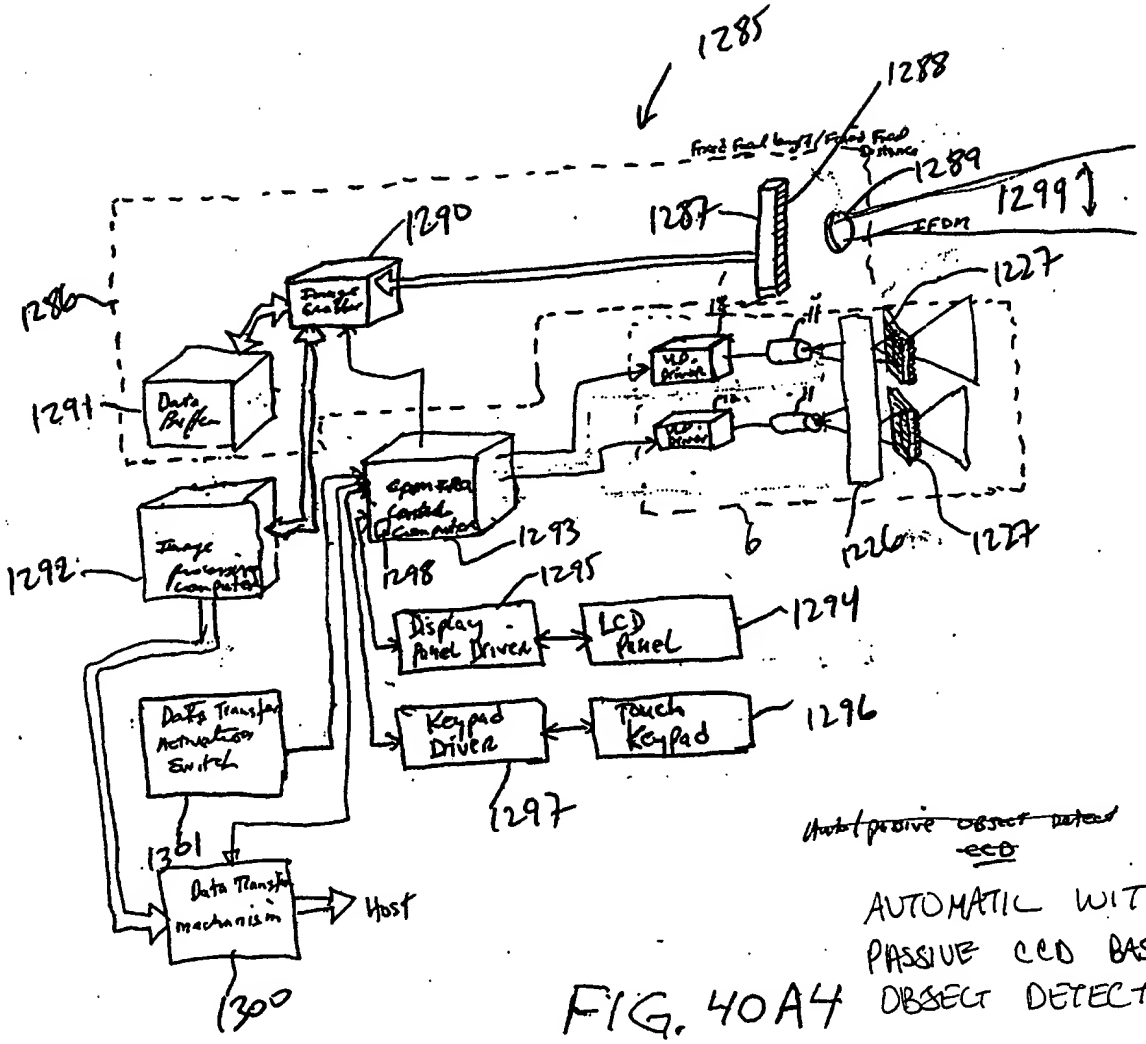


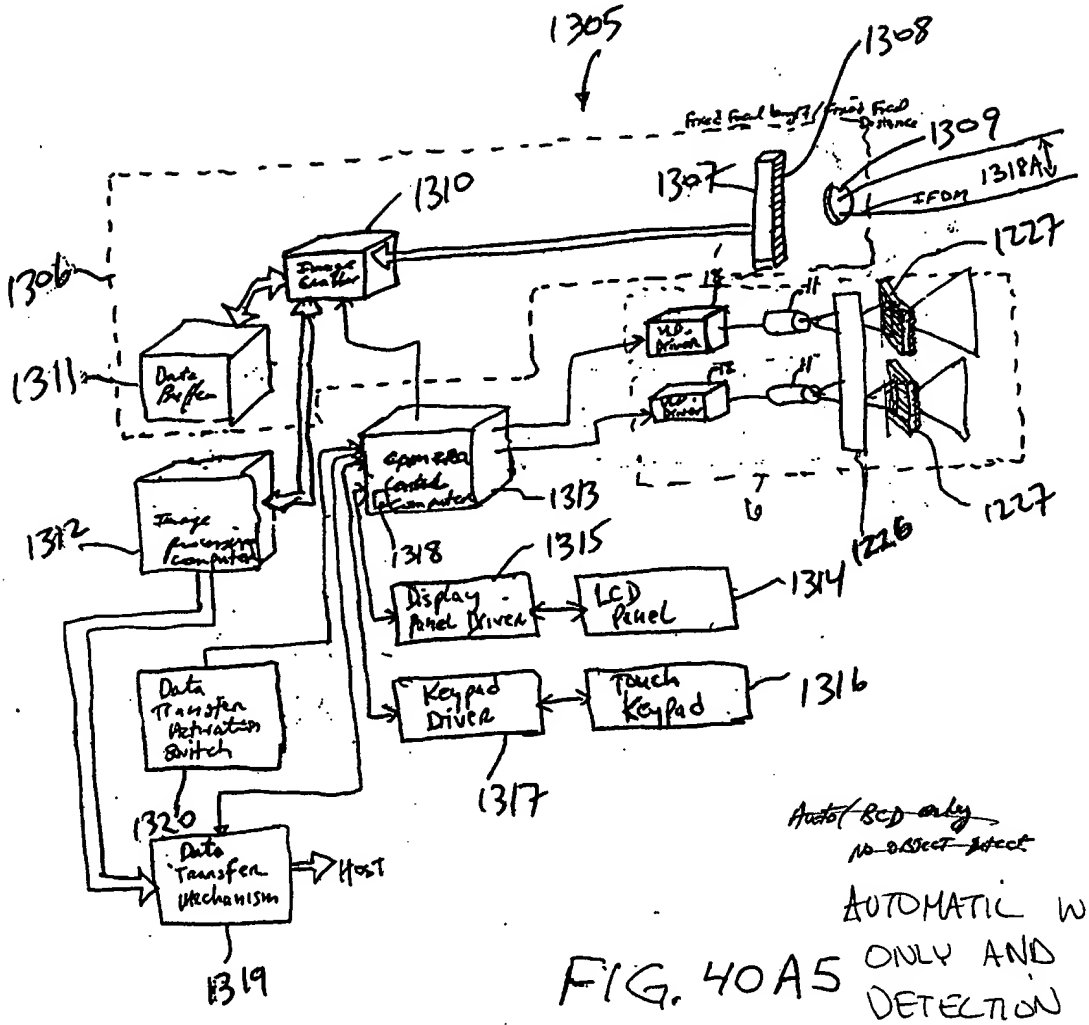
FIG. 40A1



~~Hand/passive object detect~~
~~ECD~~

AUTOMATIC WITH PASSIVE CCD BASED OBJECT DETECTION

FIG. 40A4



Auto/BCD only
No object detect

AUTOMATIC WITH BCD ONLY AND NO OBJECT DETECTION

FIG. 40A5

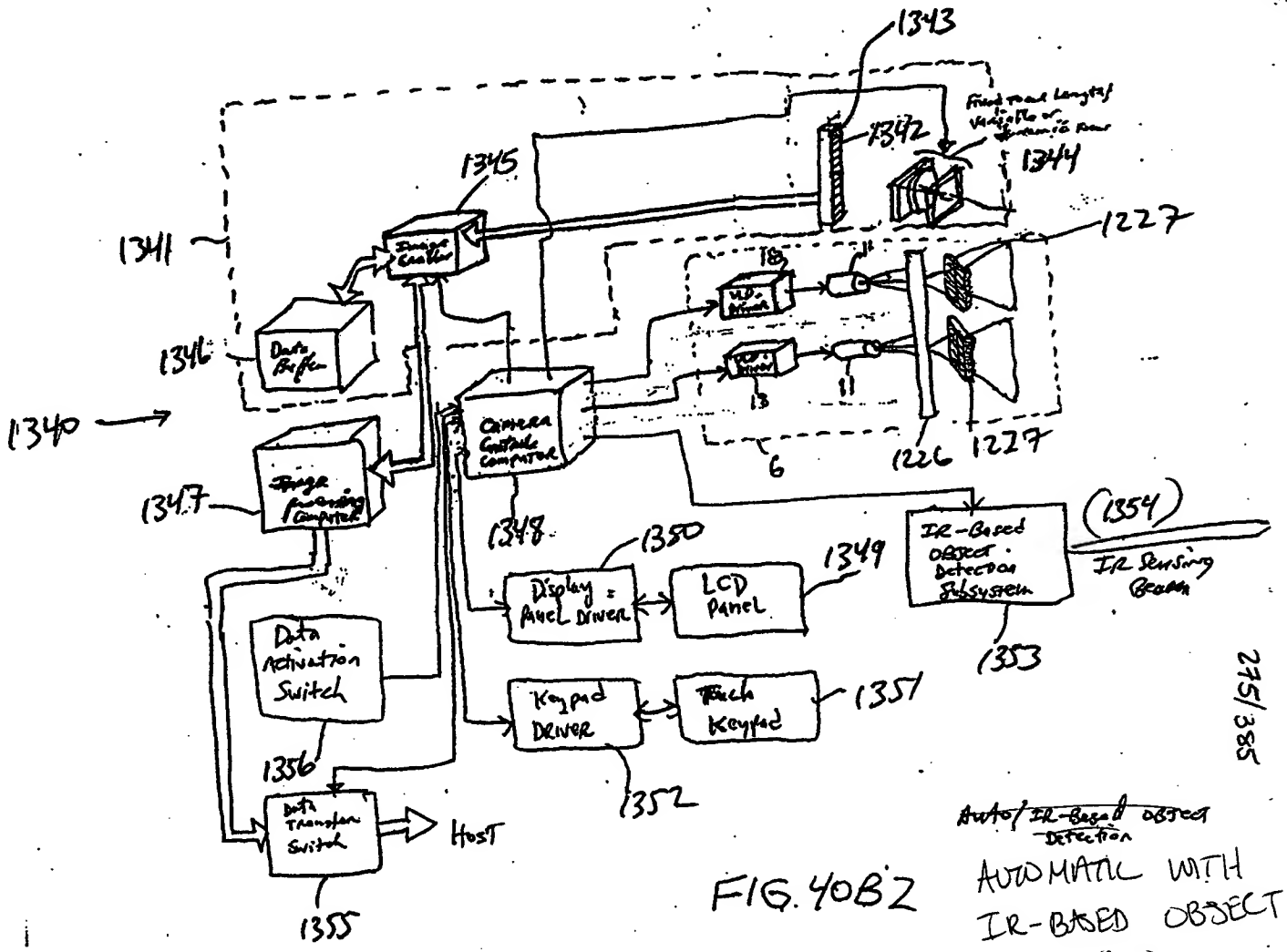


FIG. 40B2

Auto/~~IR-Based~~ Object ~~Detection~~

AUTOMATIC WITH IR-BASED OBJECT DETECTION)

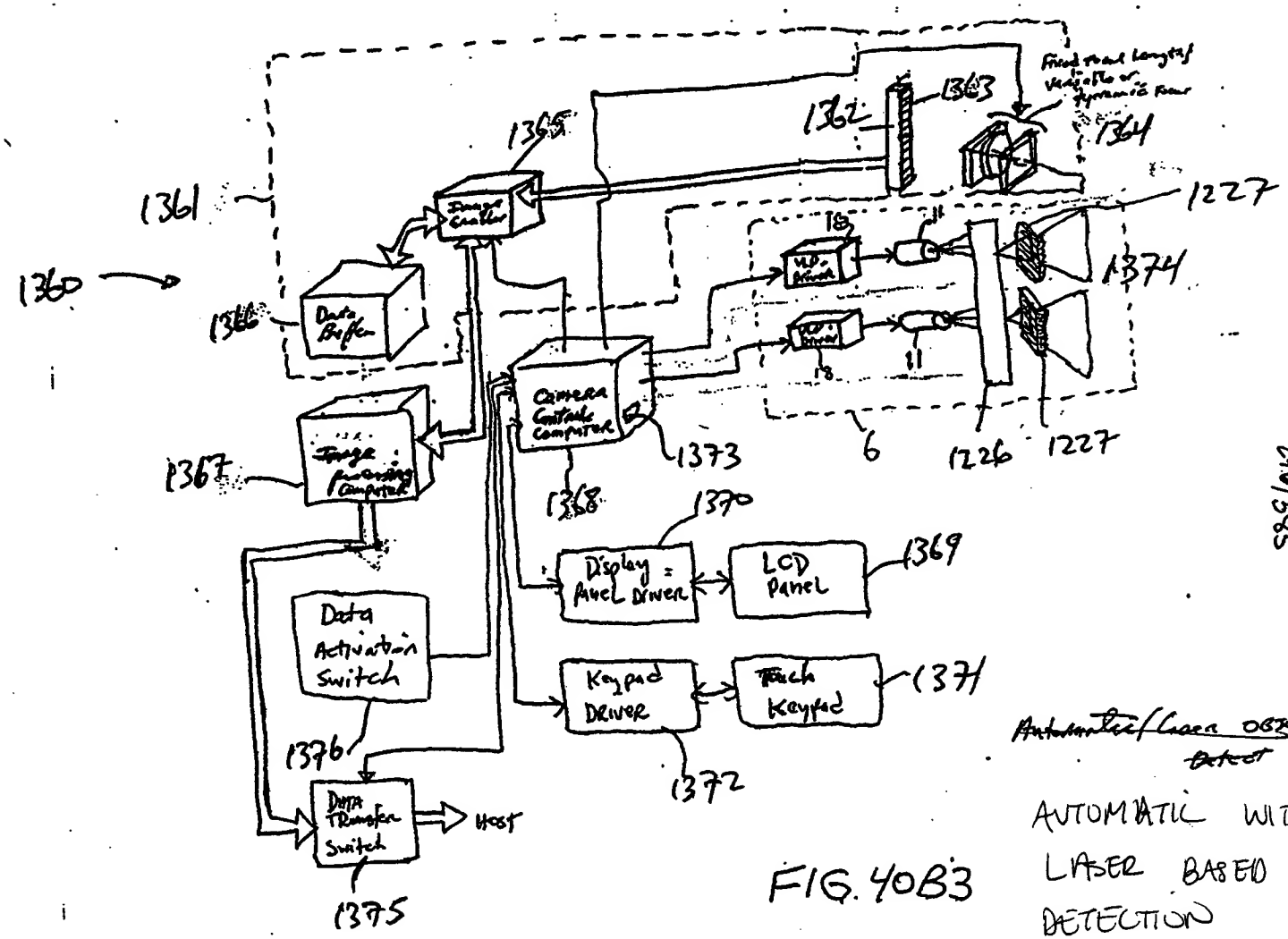


FIG. 40B3

Automatic/Laser Object Detect

AUTOMATIC WITH LASER BASED OBJECT DETECTION

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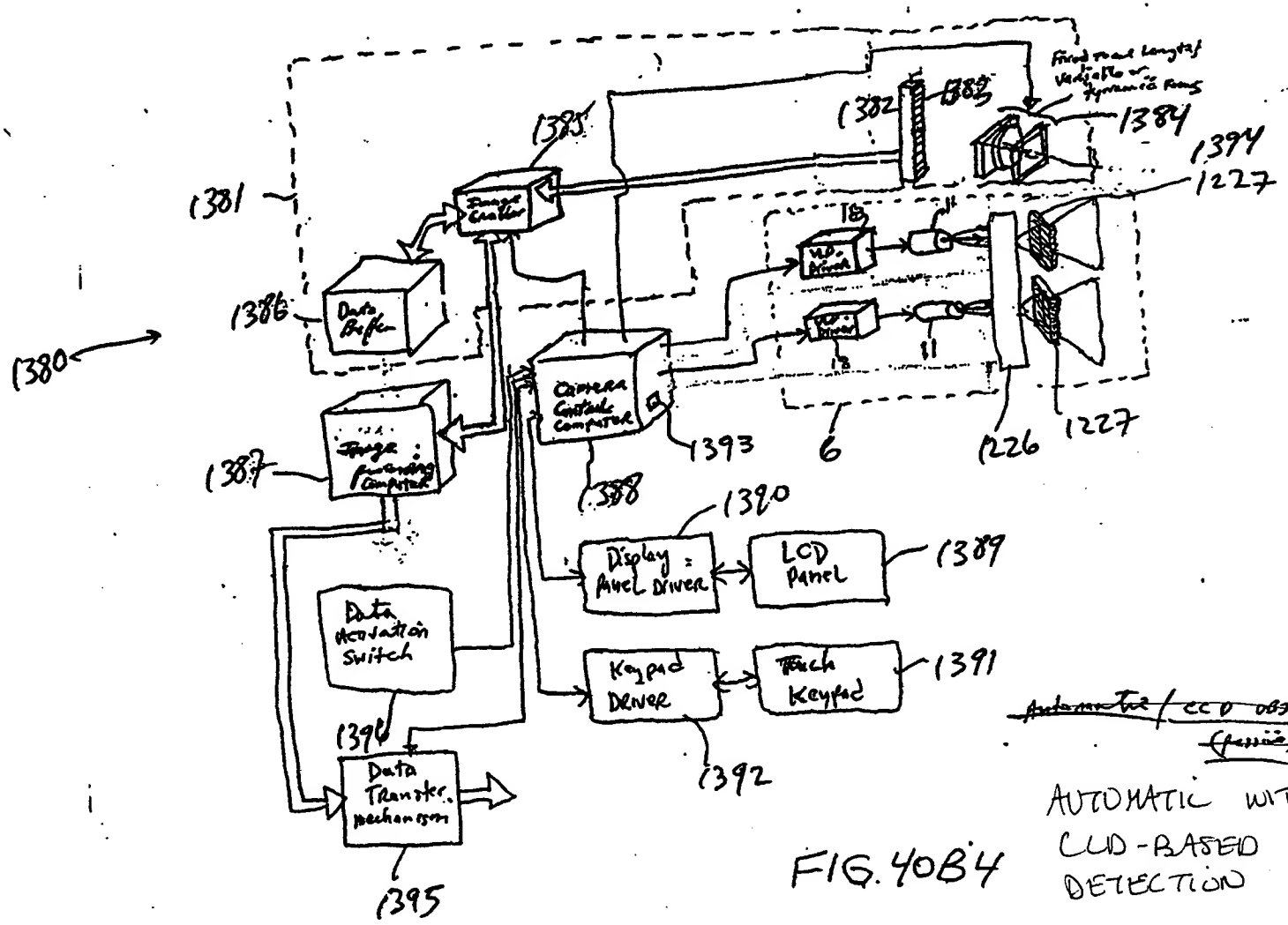

FIG. 40B4

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~~Automatic / CCD Object Detect. (Passive)~~

AUTOMATIC WITH PASSIVE CCD-BASED OBJECT DETECTION

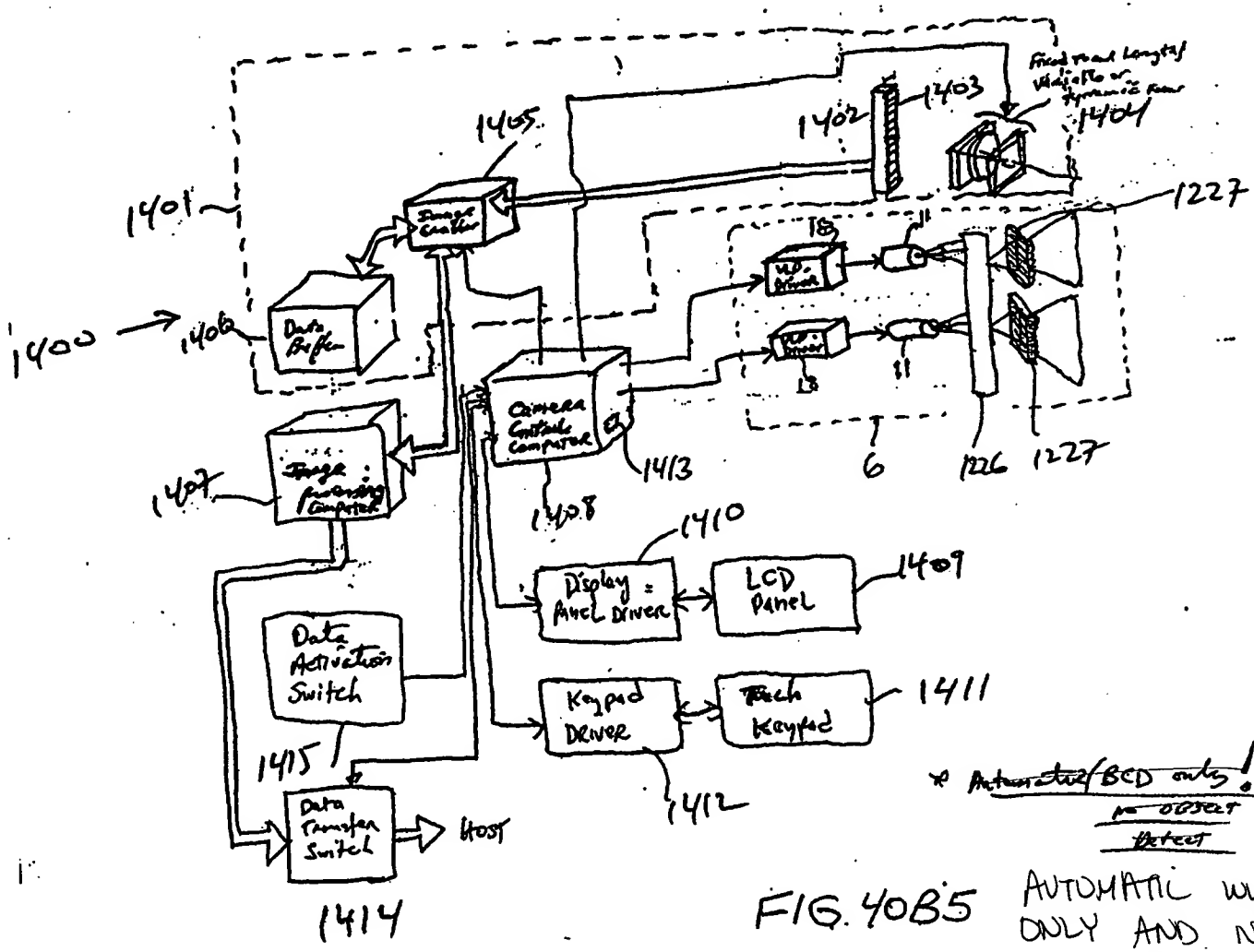

FIG. 40B5

* Actuator/BCD only! no object detect

AUTOMATIC WITH BCD ONLY AND NO OBJECT DETECTION

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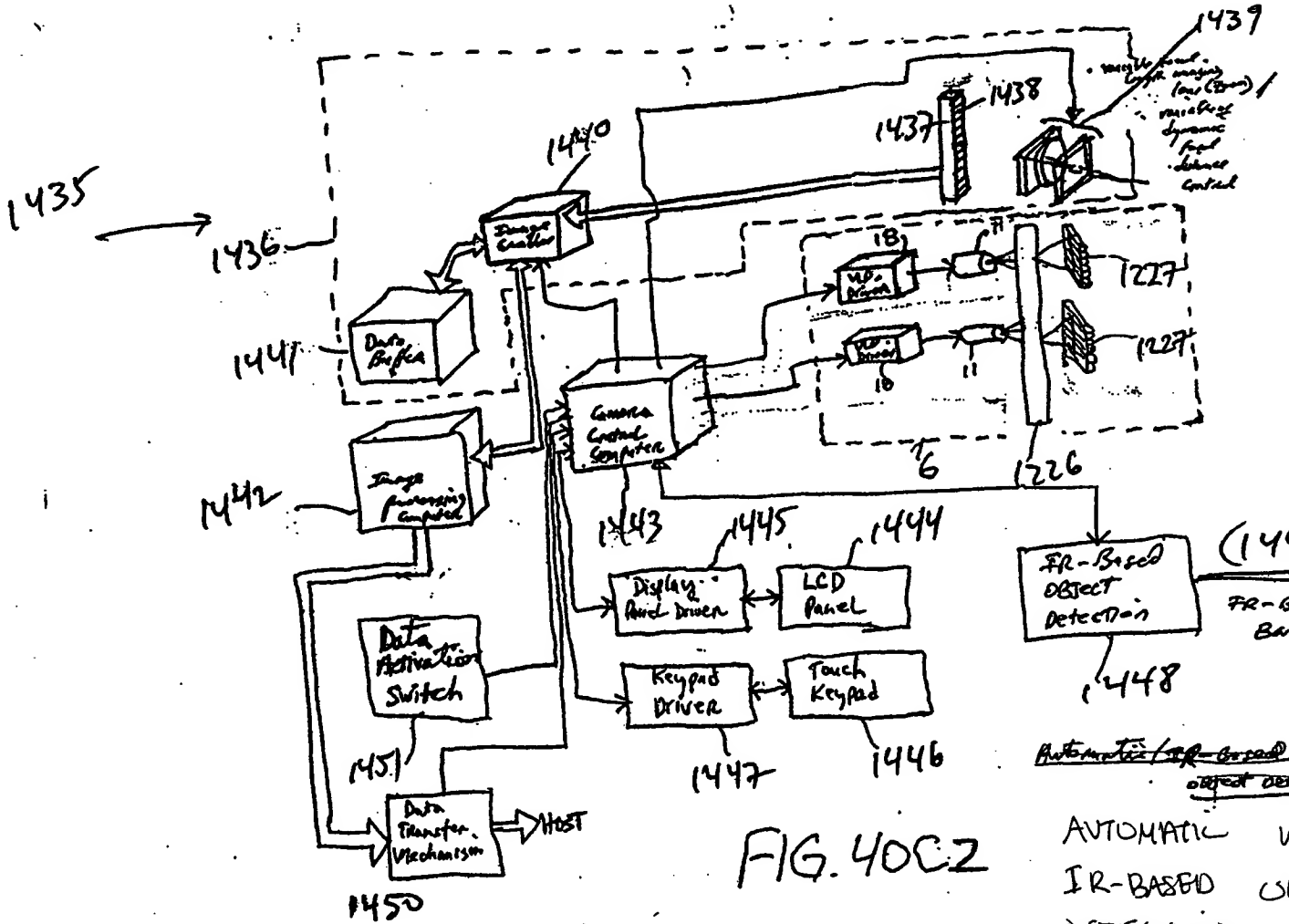

FIG. 40C2

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AUTOMATIC WITH IR-BASED OBJECT DETECTION

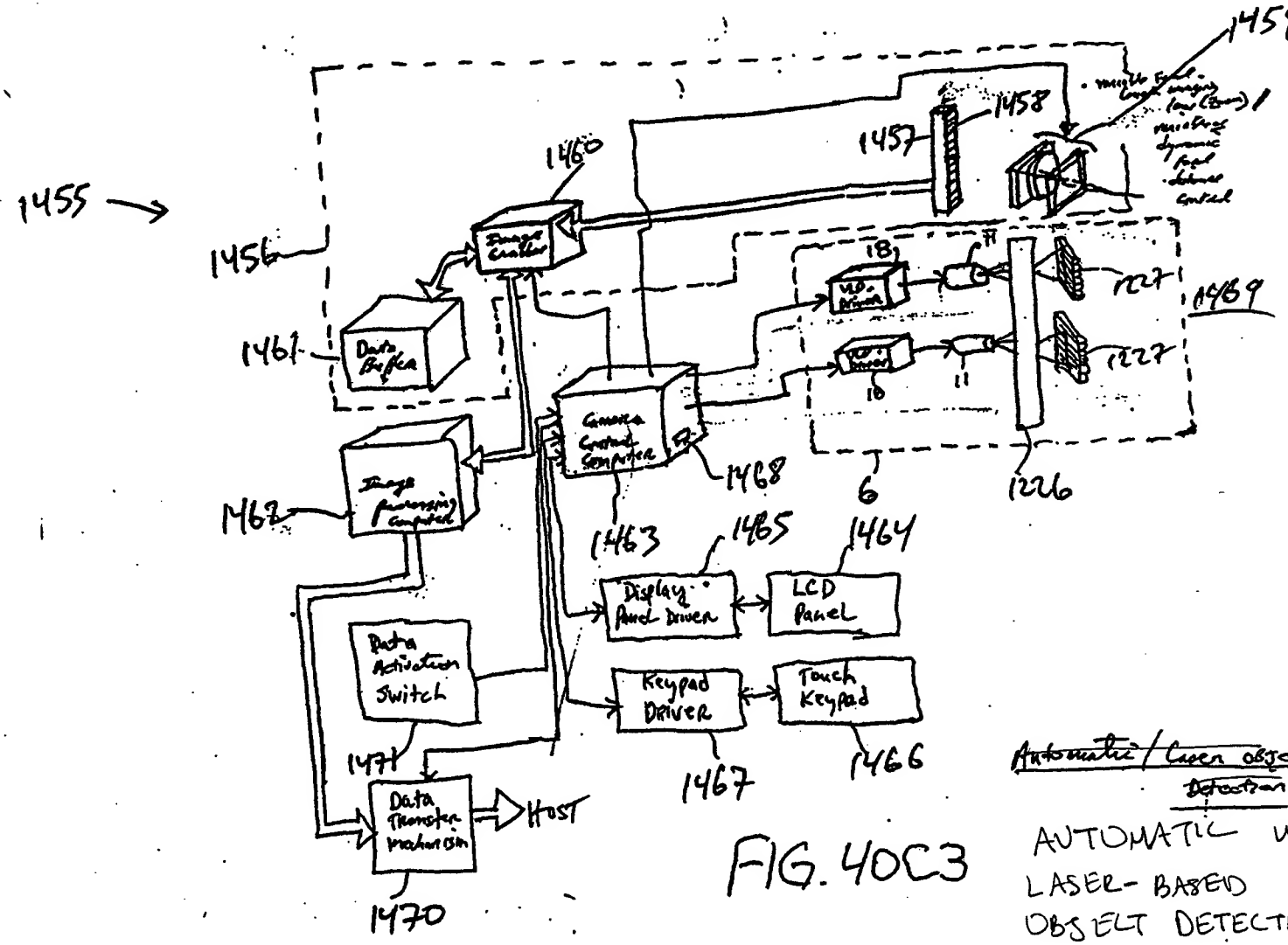

FIG. 40C3

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Automatic / Laser object detection

AUTOMATIC WITH LASER-BASED OBJECT DETECTION

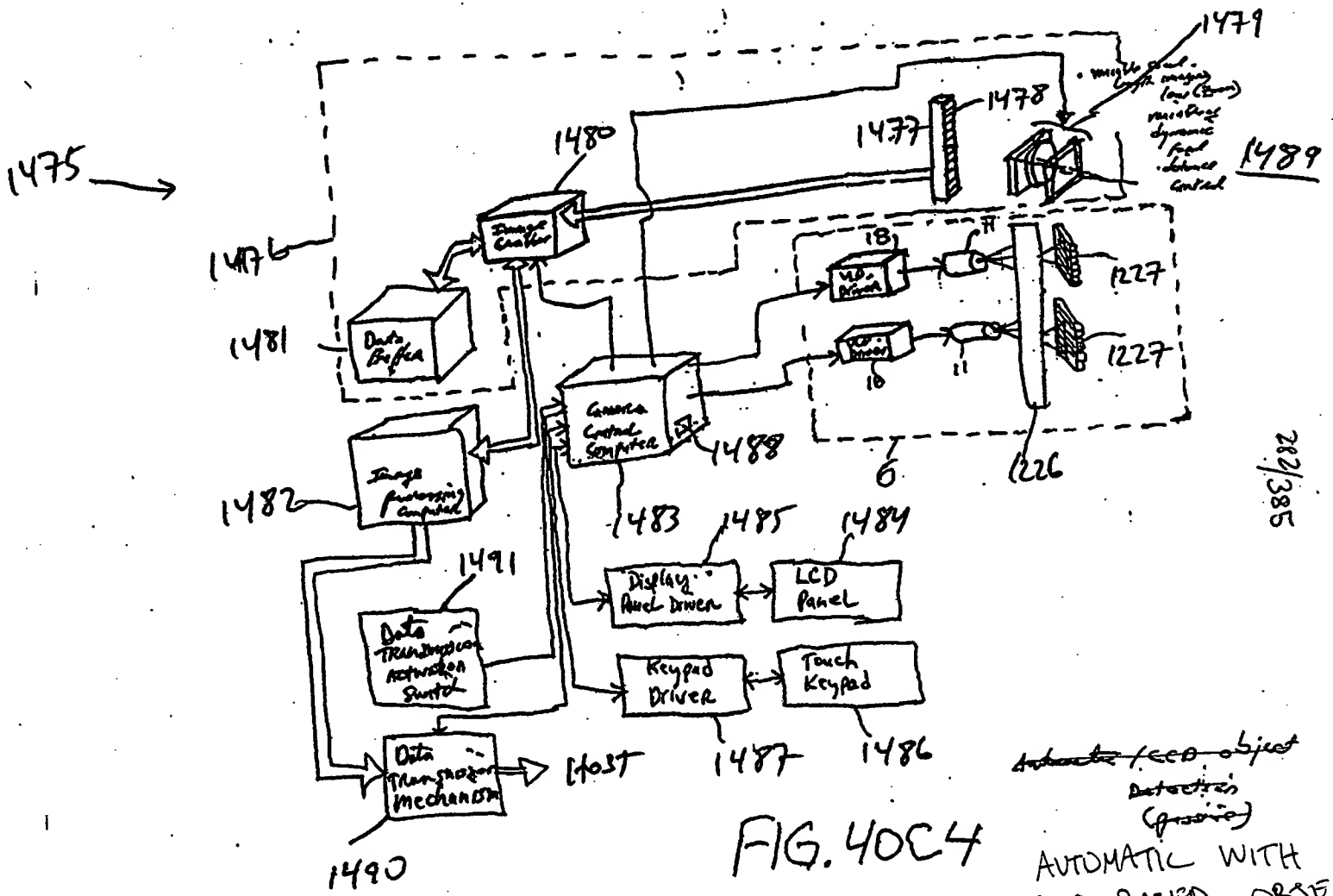

FIG. 40C4

~~Automatic Feed Object Detection (passive)~~

AUTOMATIC WITH PASSIVE CCD-BASED OBJECT DETECTION

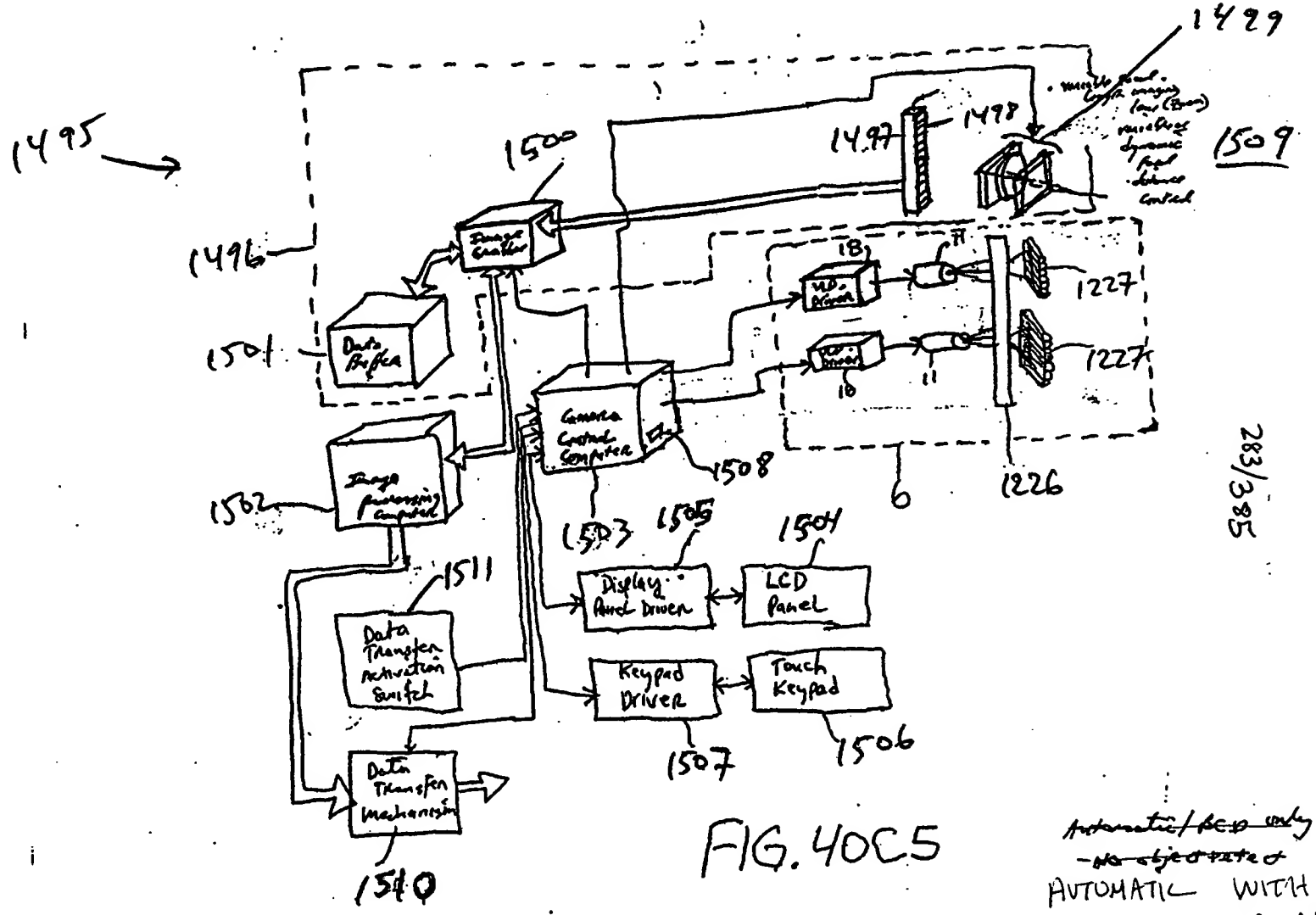

FIG. 40C5

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~~Automatic/BCD only~~
~~-no object~~
AUTOMATIC WITH BCD ONLY AND NO OBJECT DETECTION

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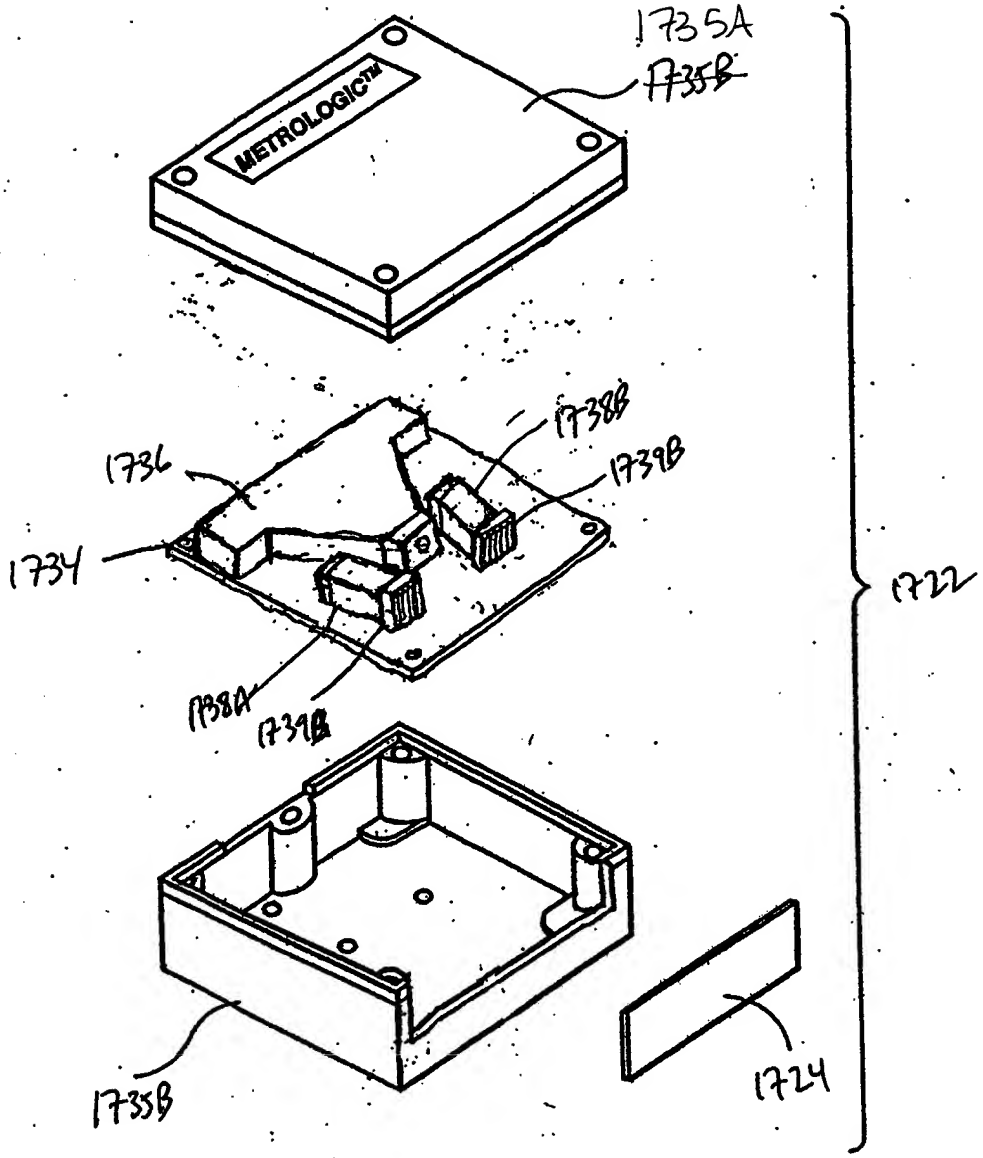

FIG. 48B

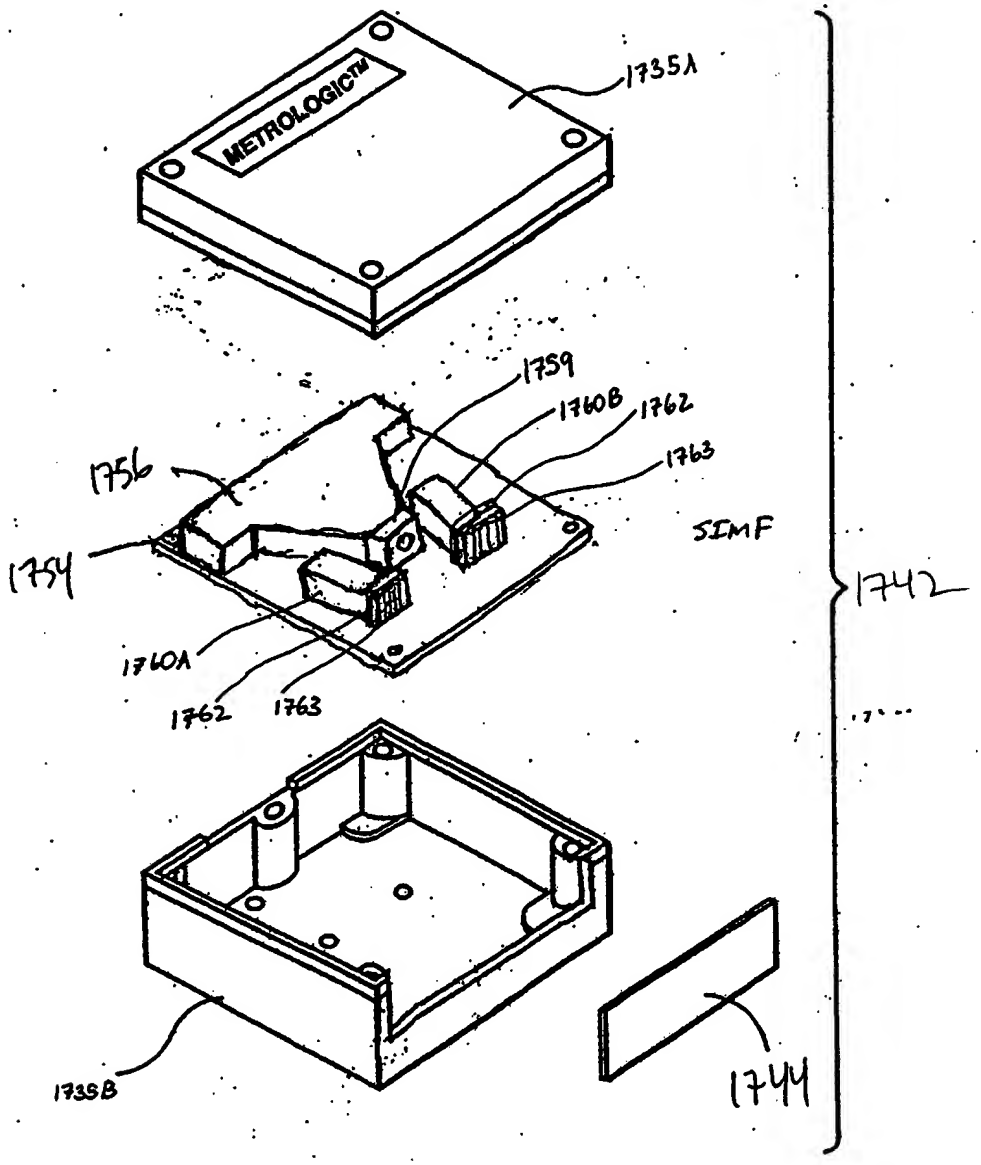

FIG. 49B

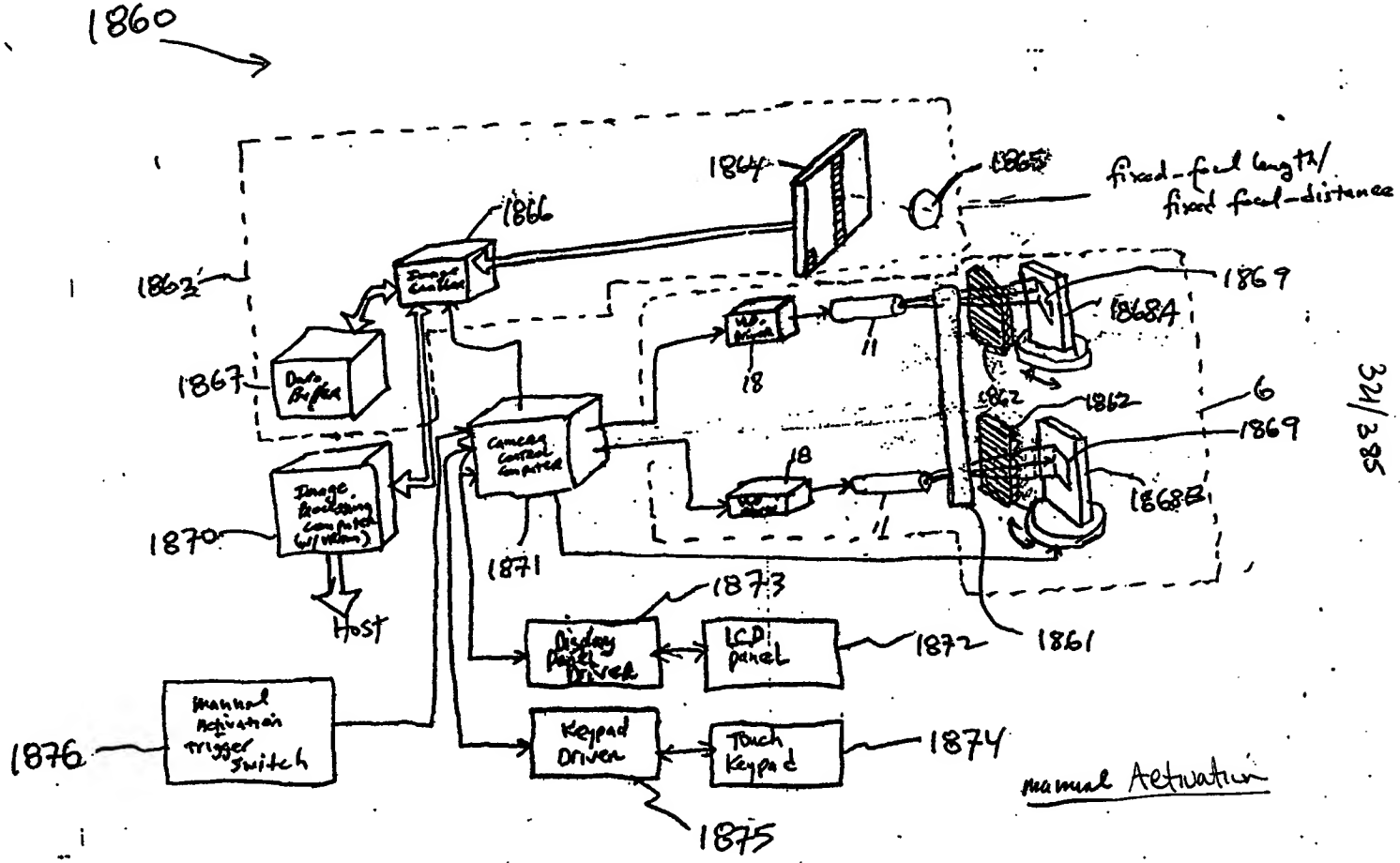

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FIG. 53A1

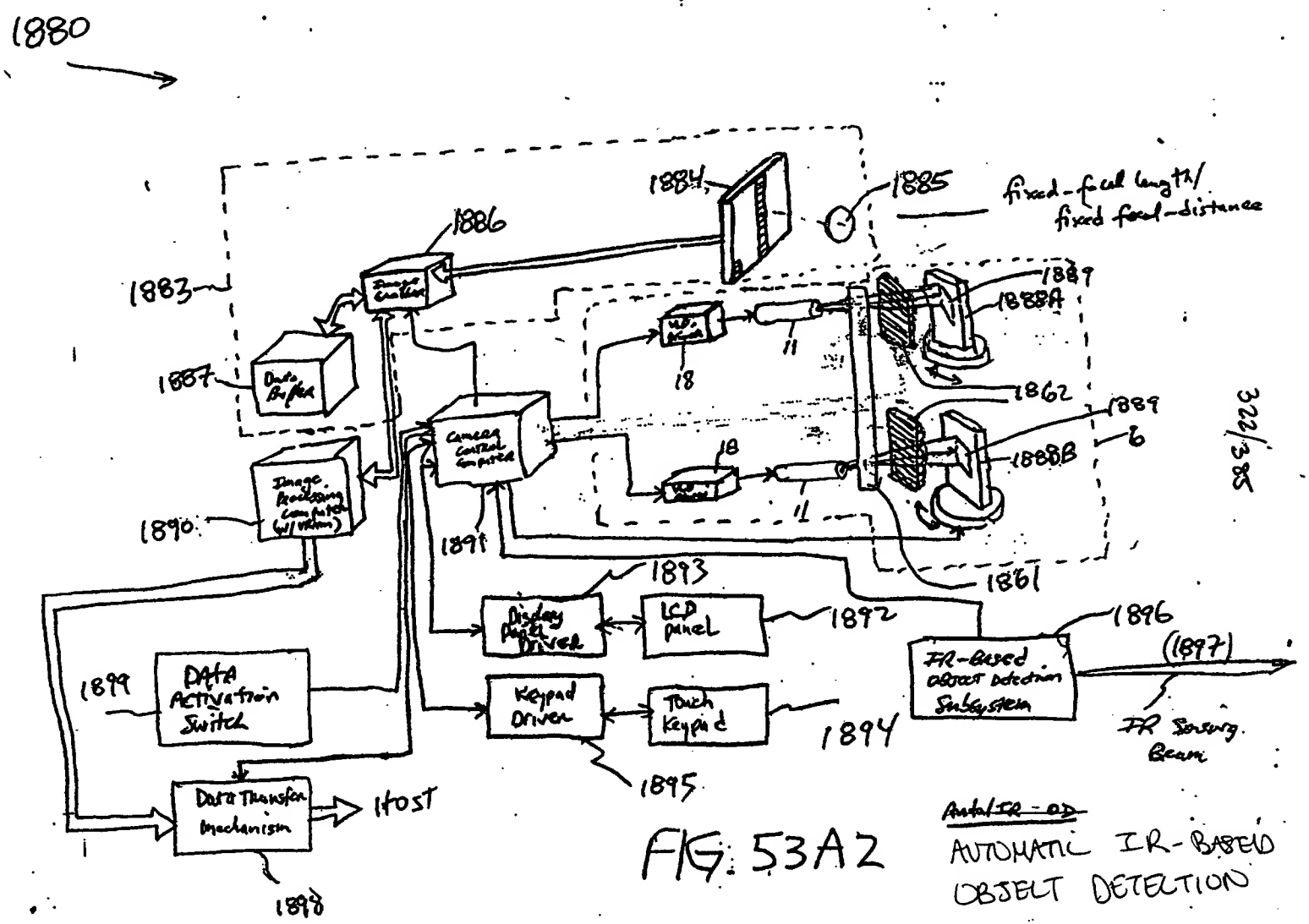

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FIG. 53A2

Anta1IR-OD

AUTOMATIC IR-BASED OBJECT DETECTION

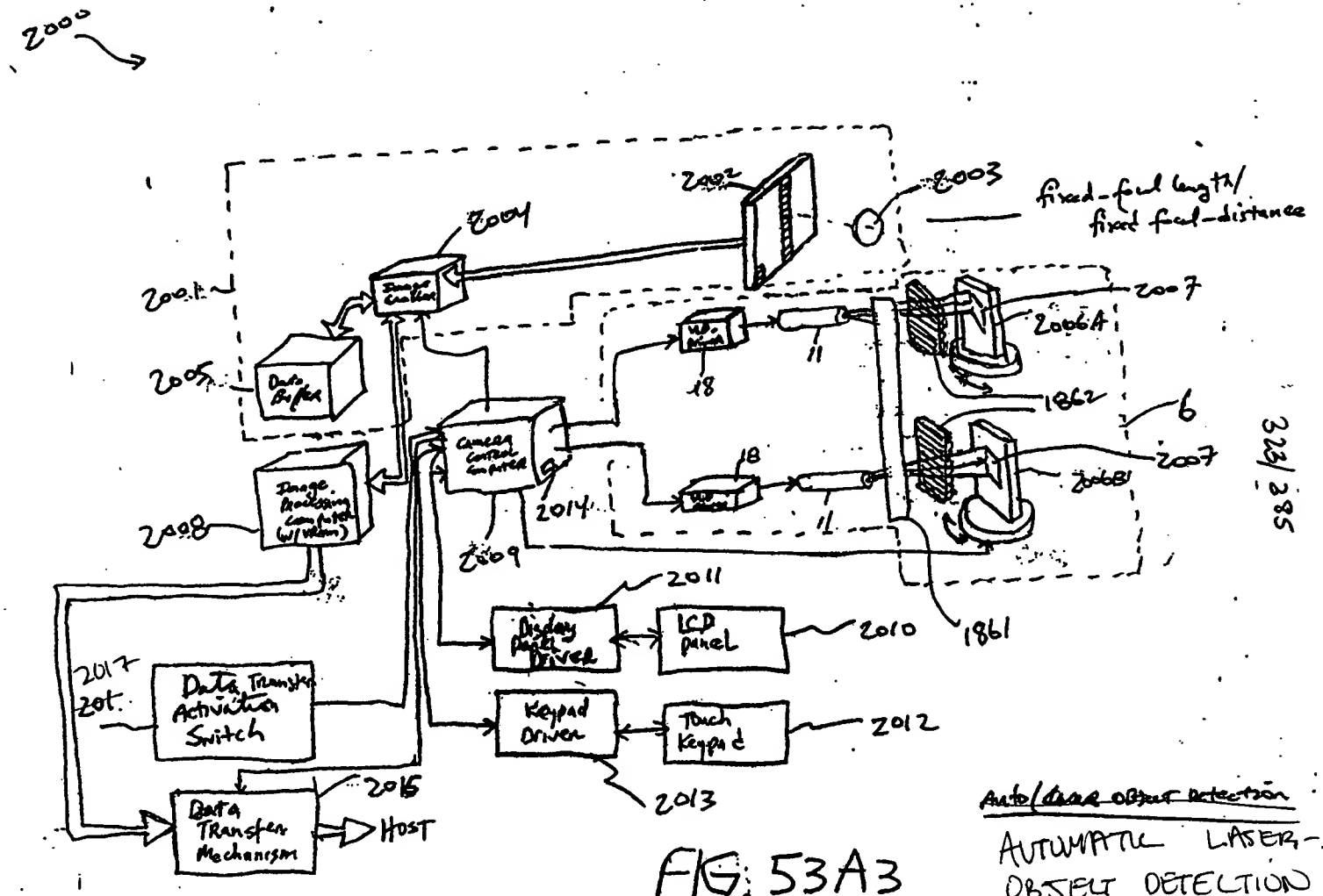

FIG. 53A3

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Auto/laser object detection

AUTOMATIC LASER-BASED OBJECT DETECTION

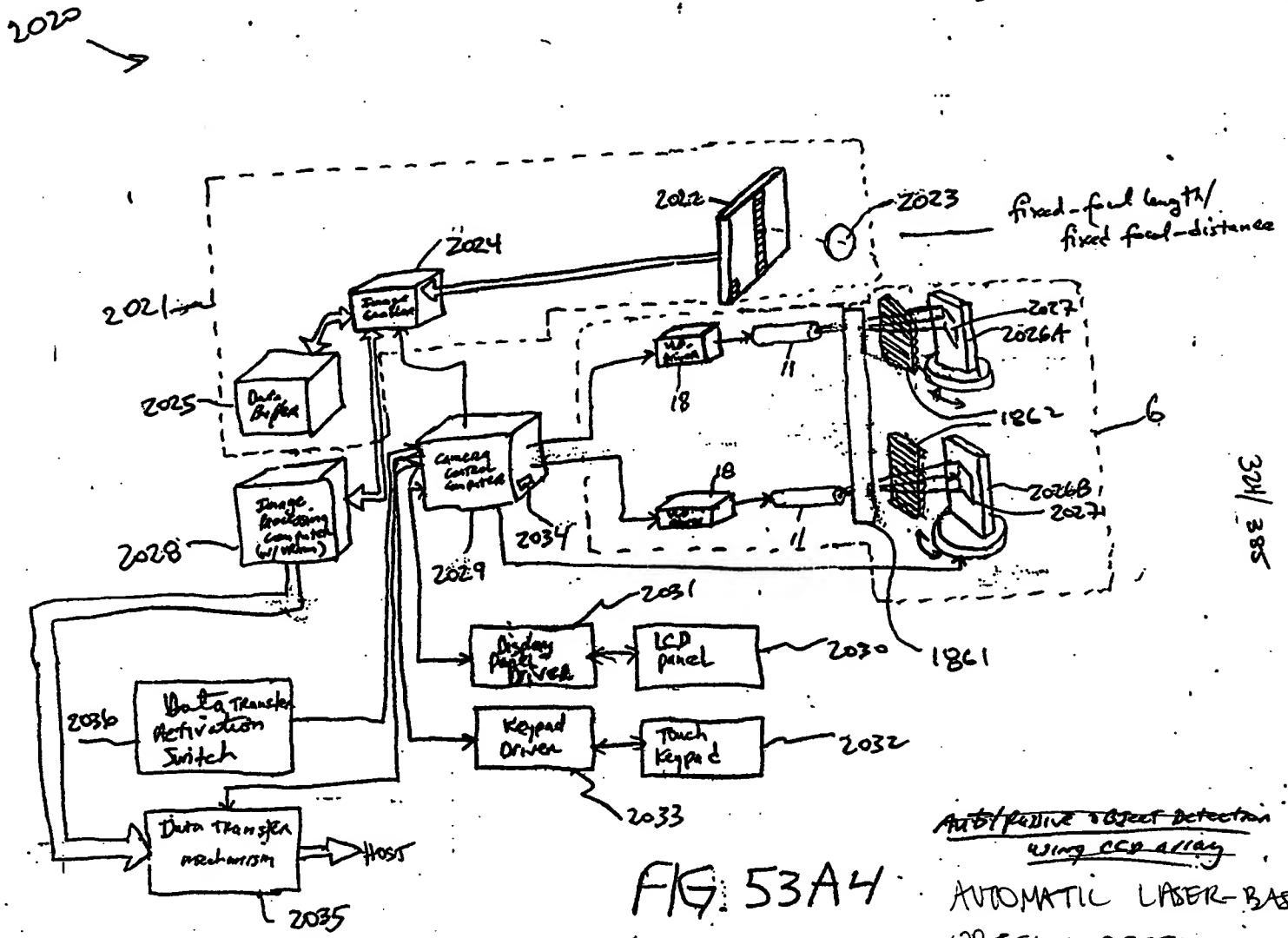

FIG. 53A4

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Auto/Passive Object Detection Using CCD Array

AUTOMATIC LASER-BASED OBJECT DETECTION USING CCD ARRAY

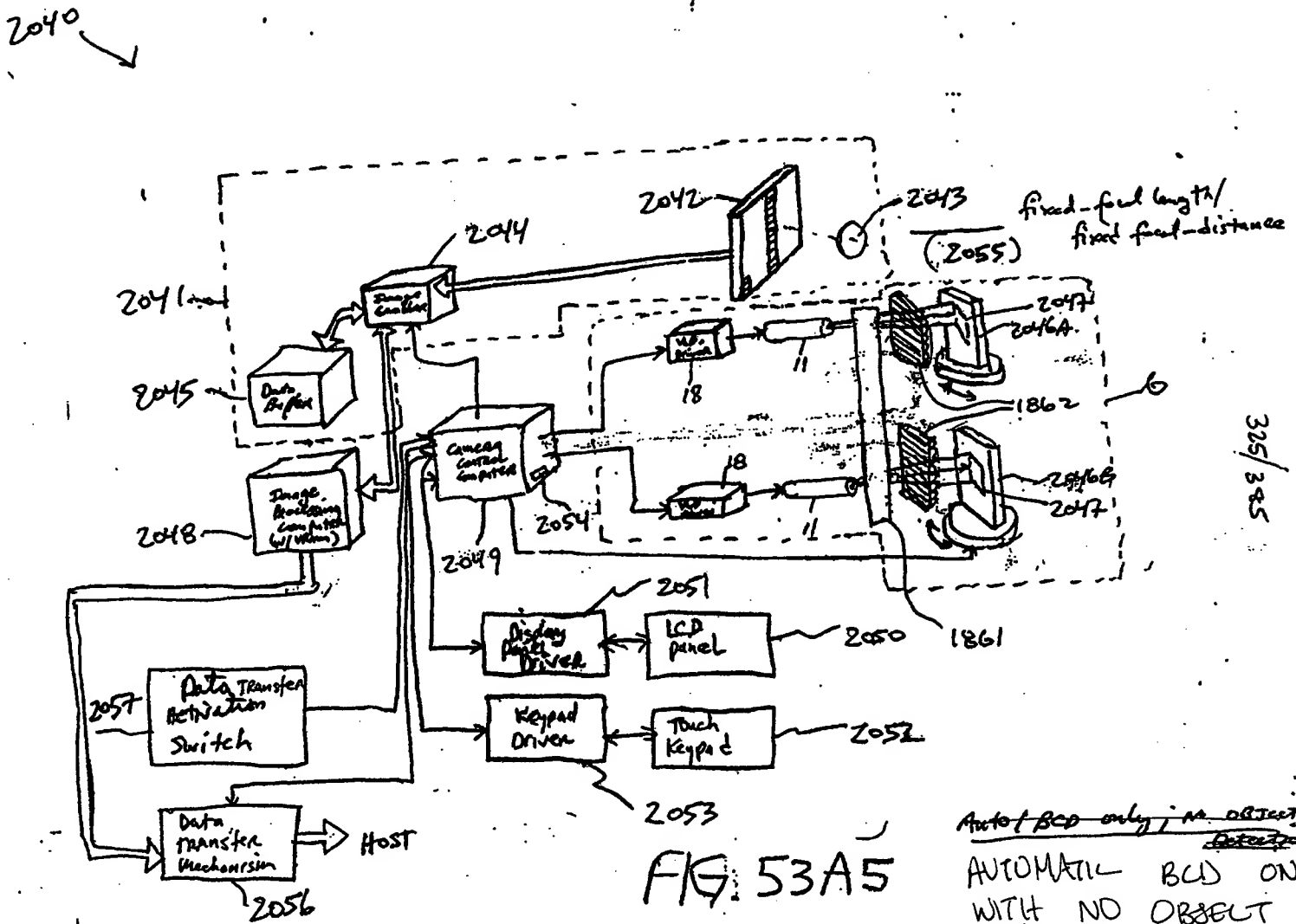

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FIG. 53A5

~~Auto / BCD only / NO OBJECT DETECTION~~

AUTOMATIC BCD ONLY WITH NO OBJECT DETECTION

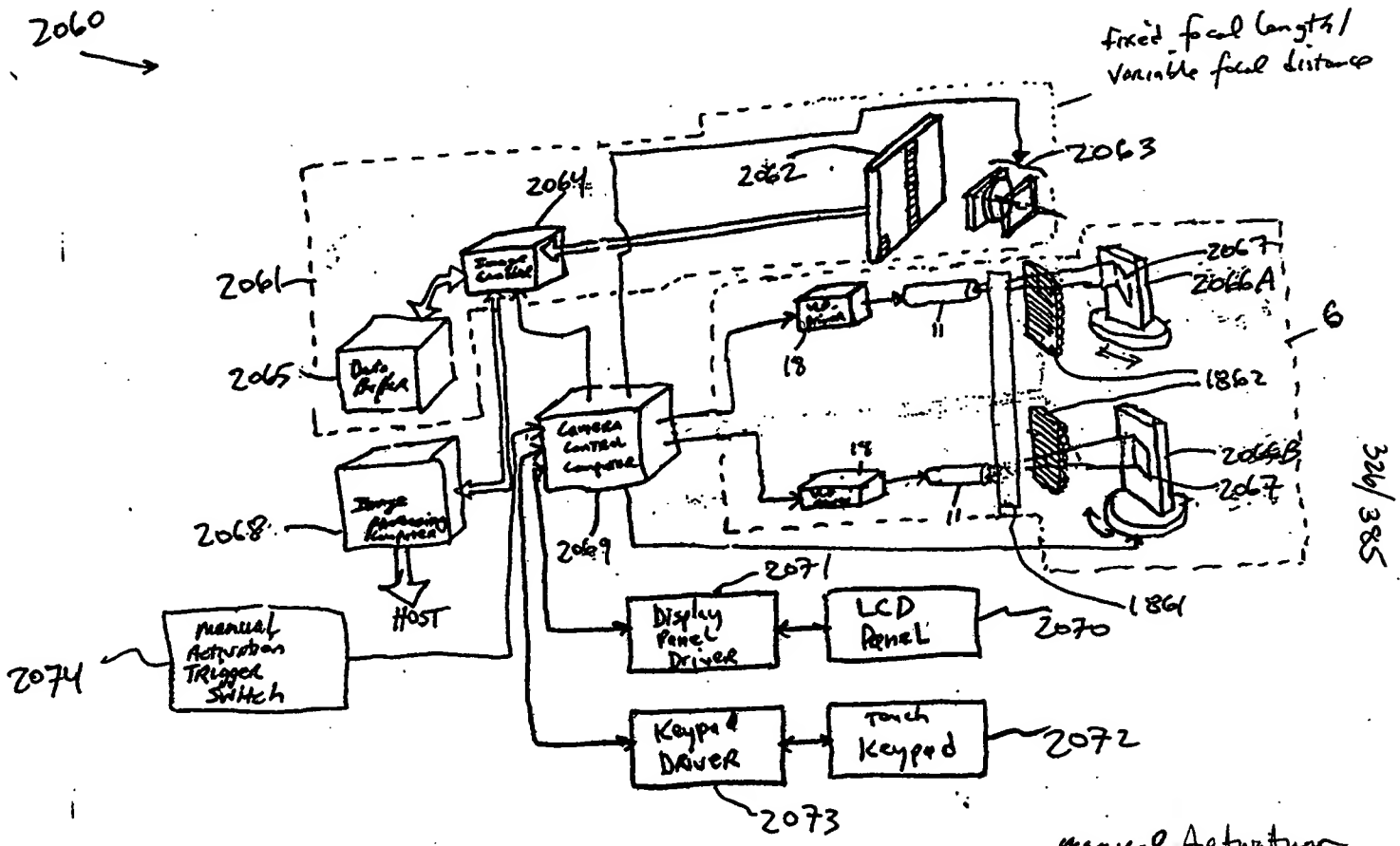

FIG. 53B1

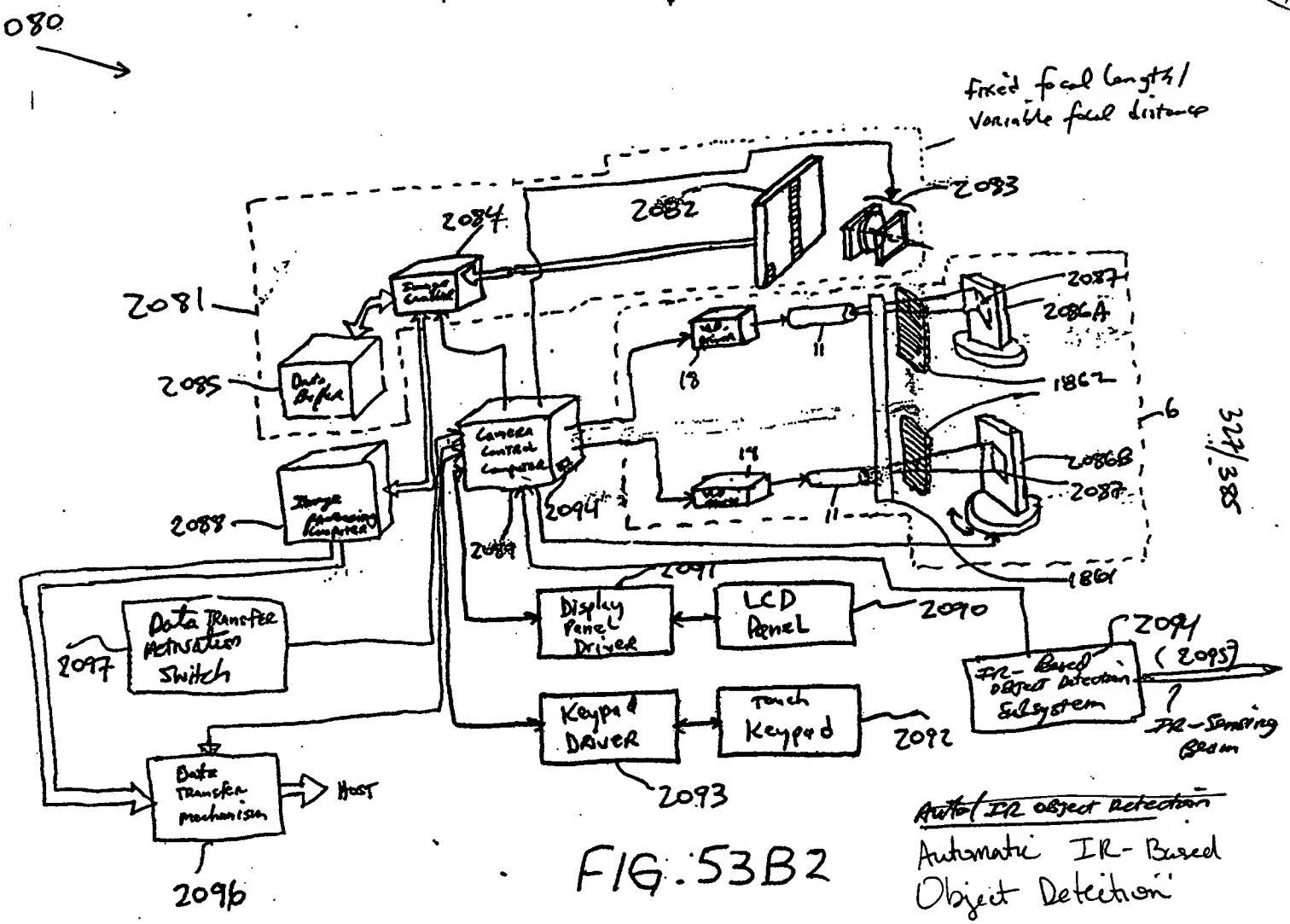

FIG. 53B2

Auto IR object detection

Automatic IR-Based Object Detection

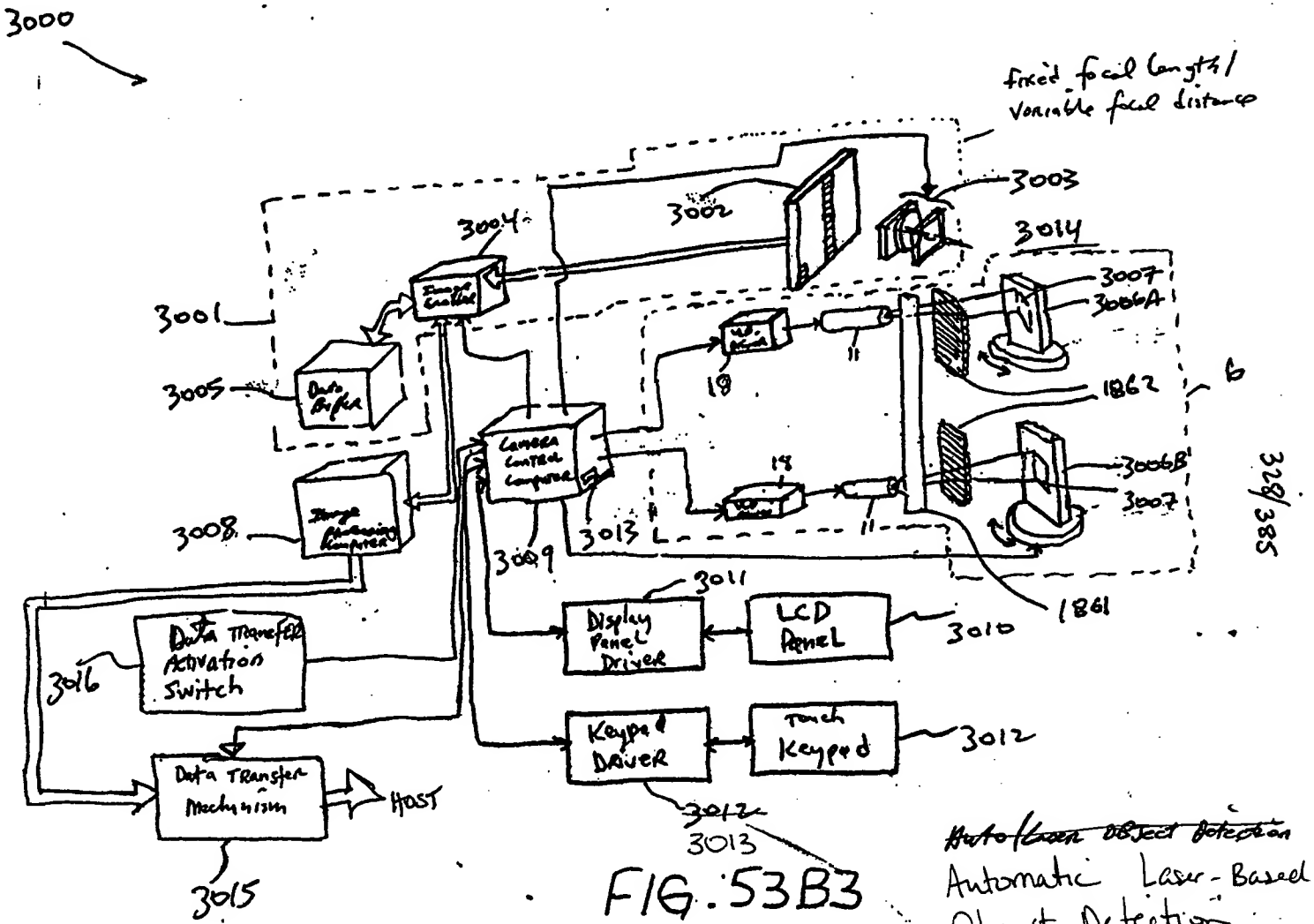

FIG. 53B3

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~~Auto/Laser Object Detection~~
Automatic Laser-Based Object Detection

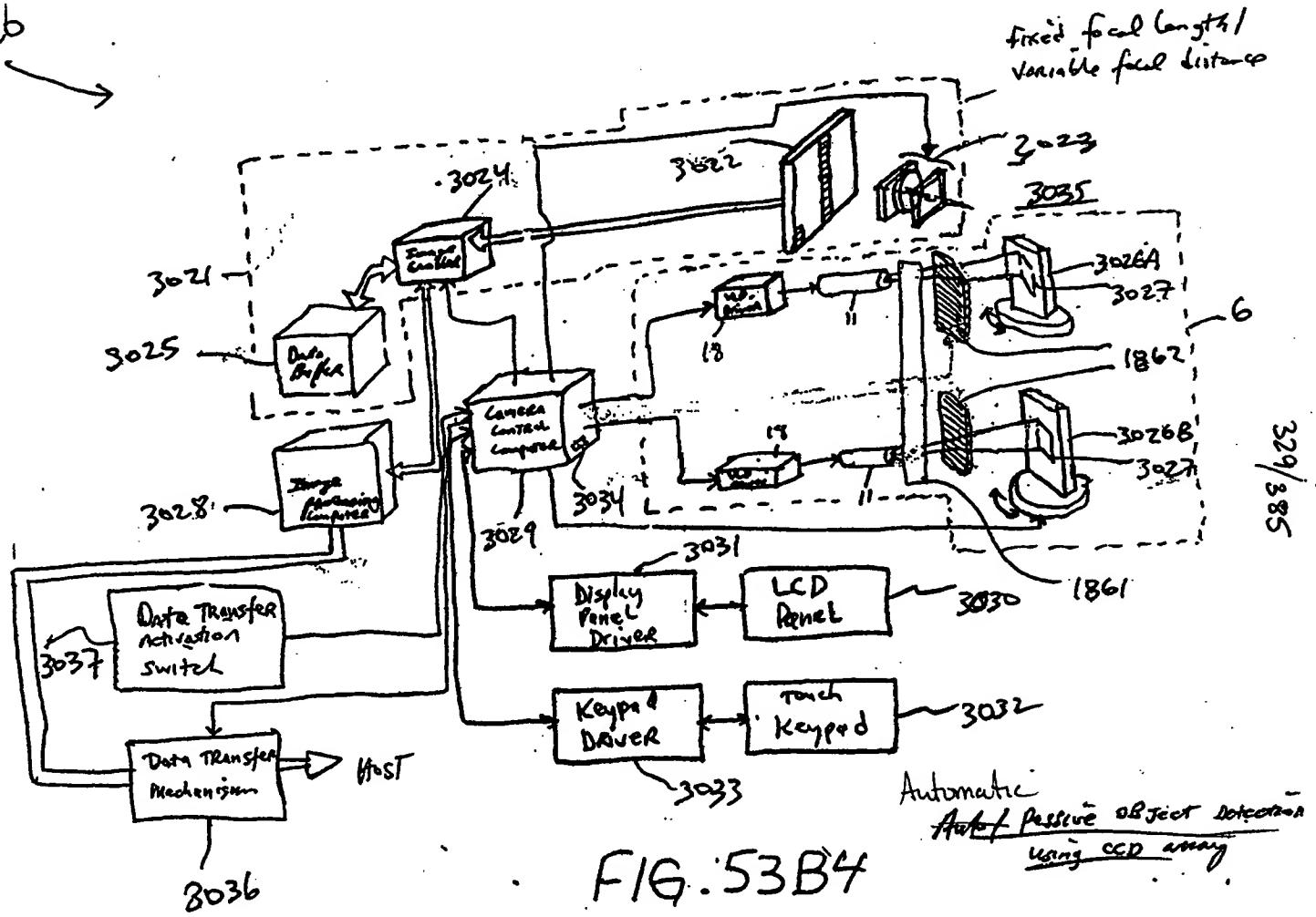

FIG. 53B4

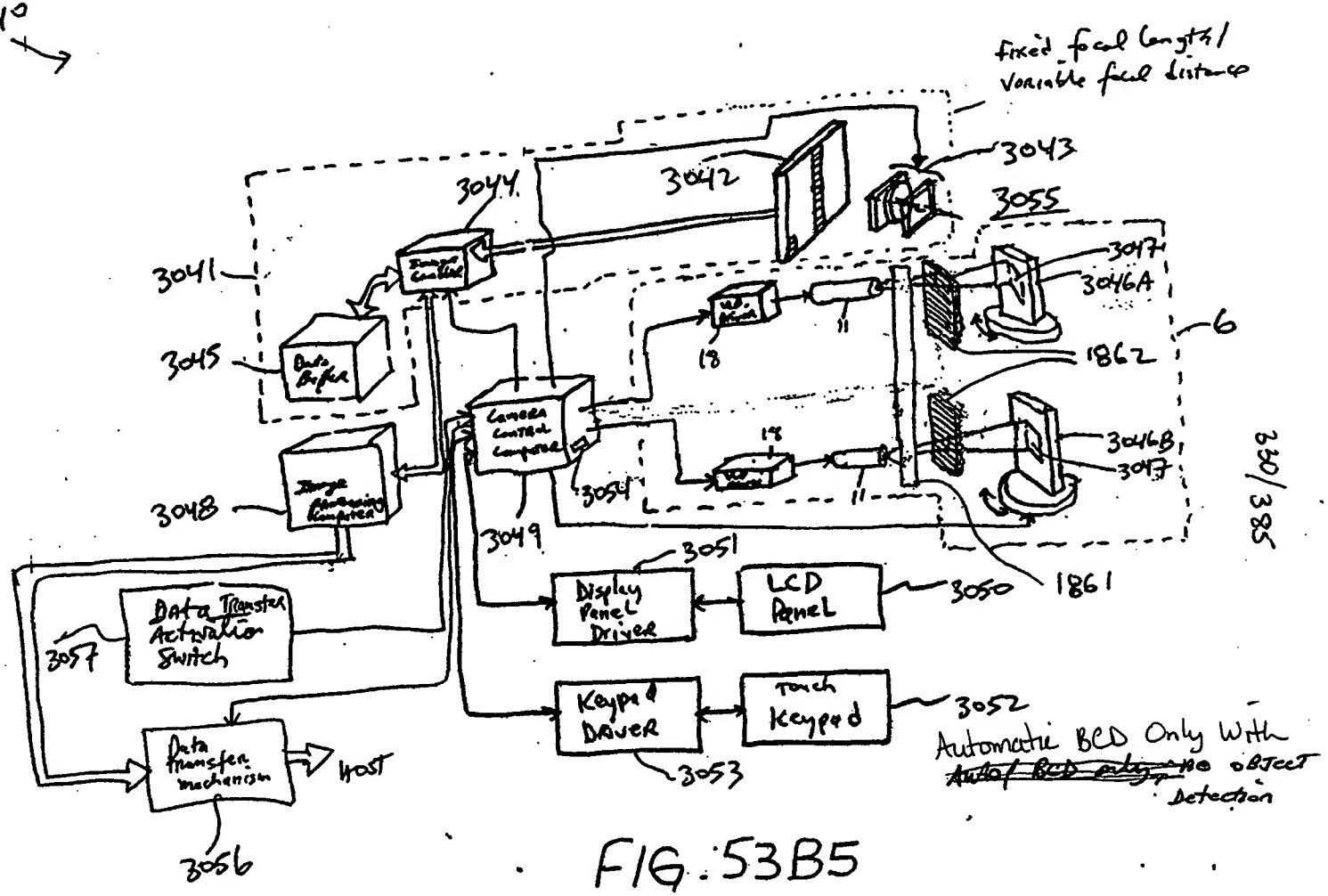

FIG. 53B5

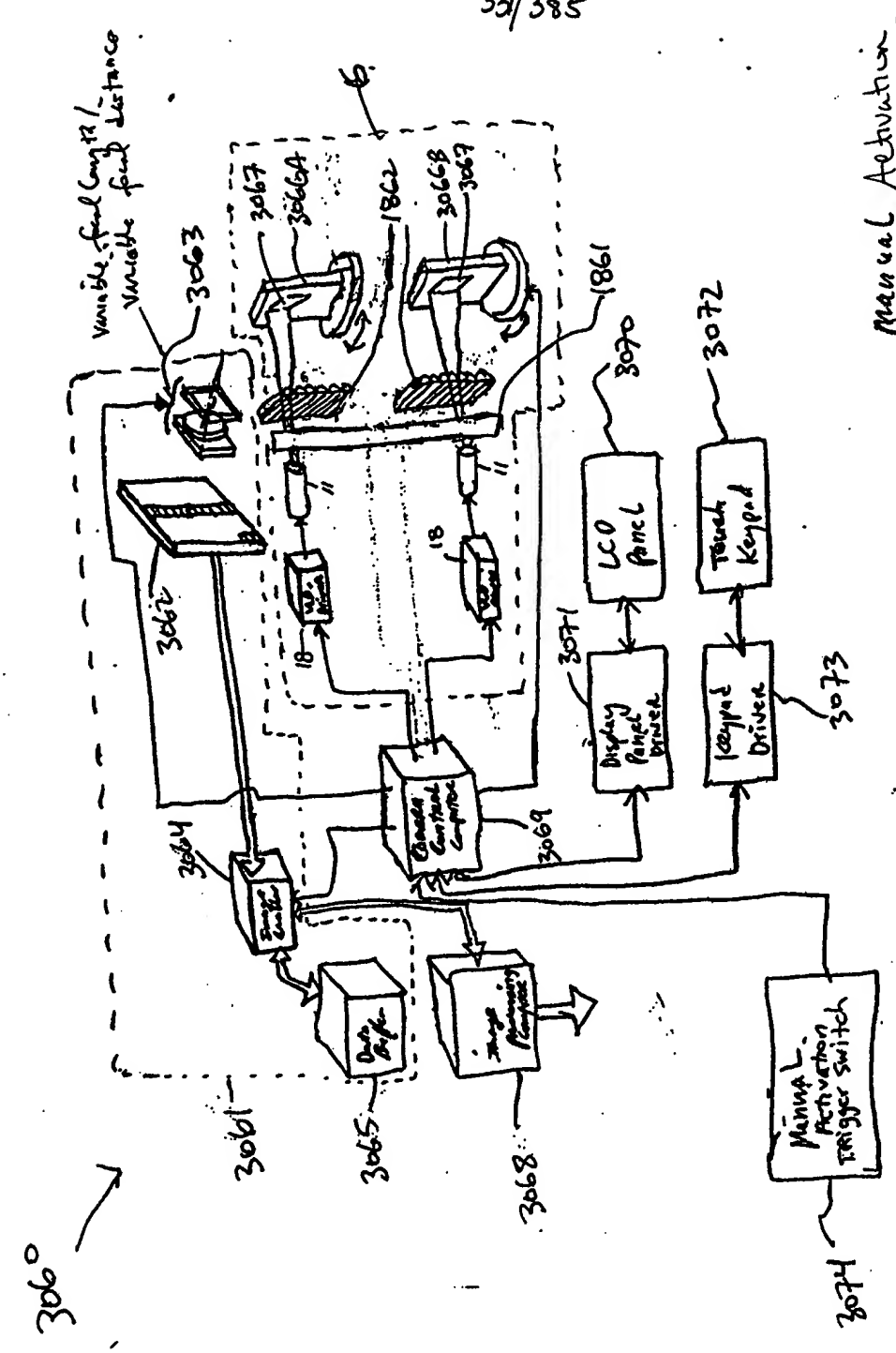

FIG. 53C1

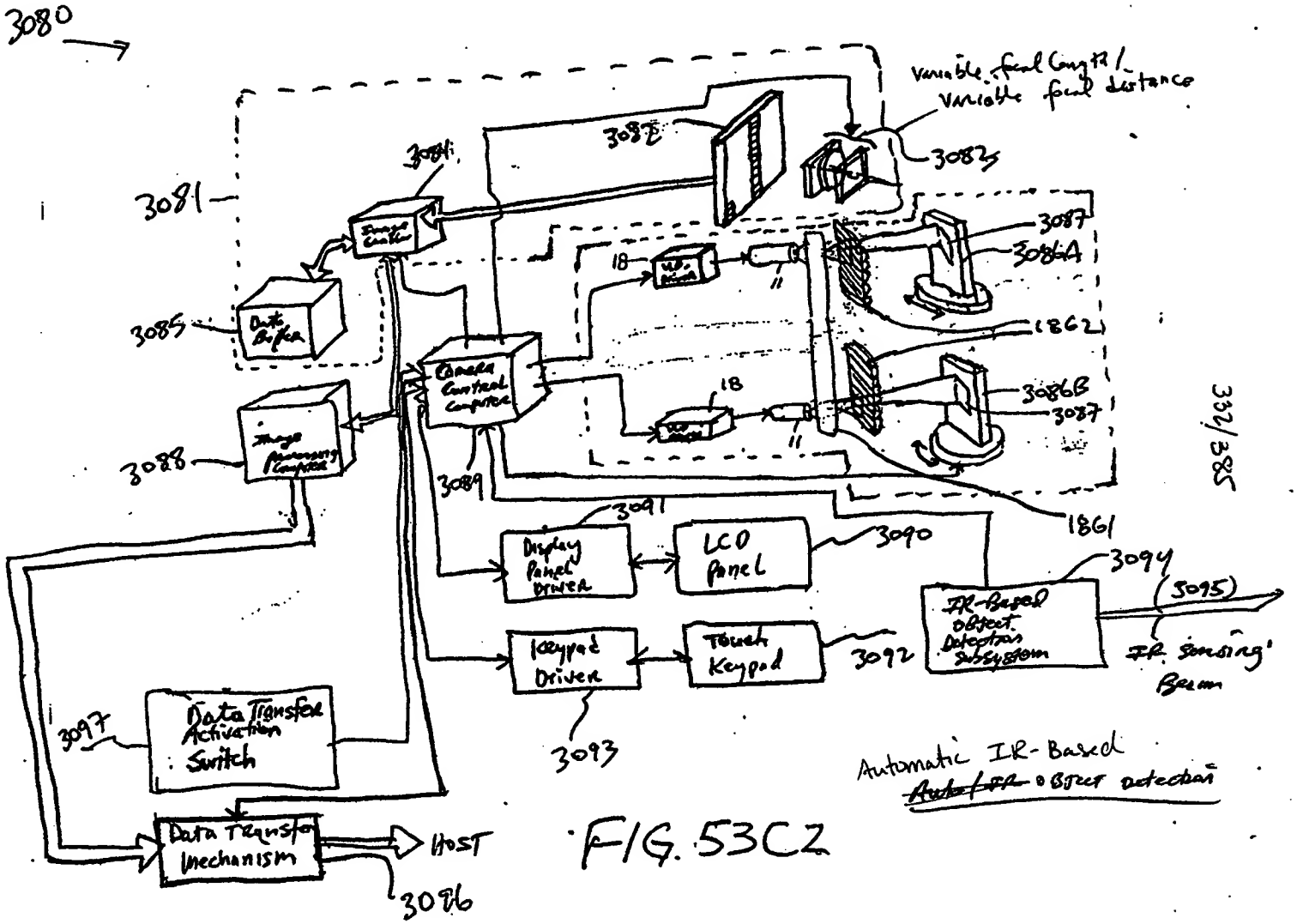

FIG. 53C2

Automatic IR-Based ~~Auto-IR~~ Object detection

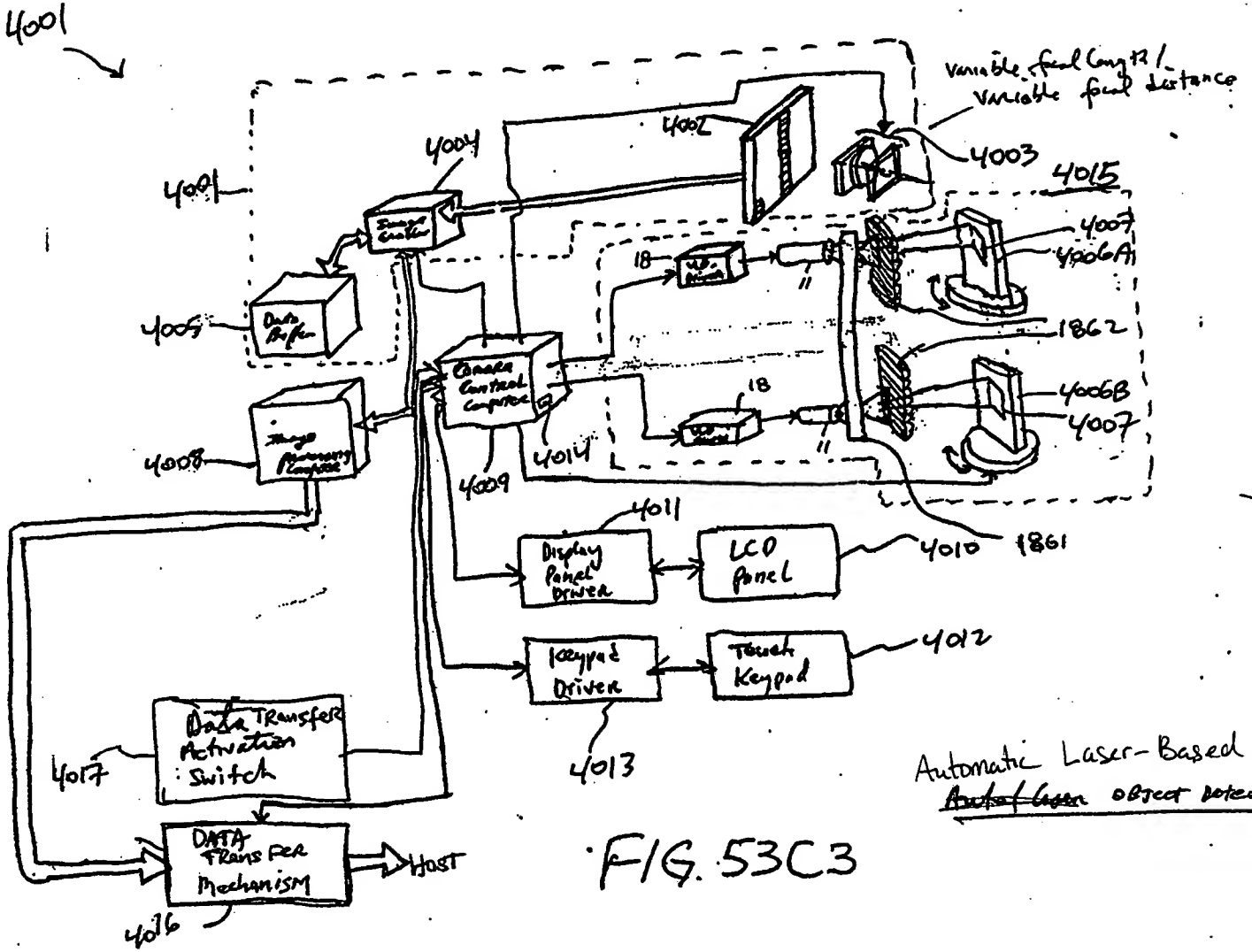

FIG. 53C3

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Automatic Laser-Based ~~Auto-Focus~~ object detection

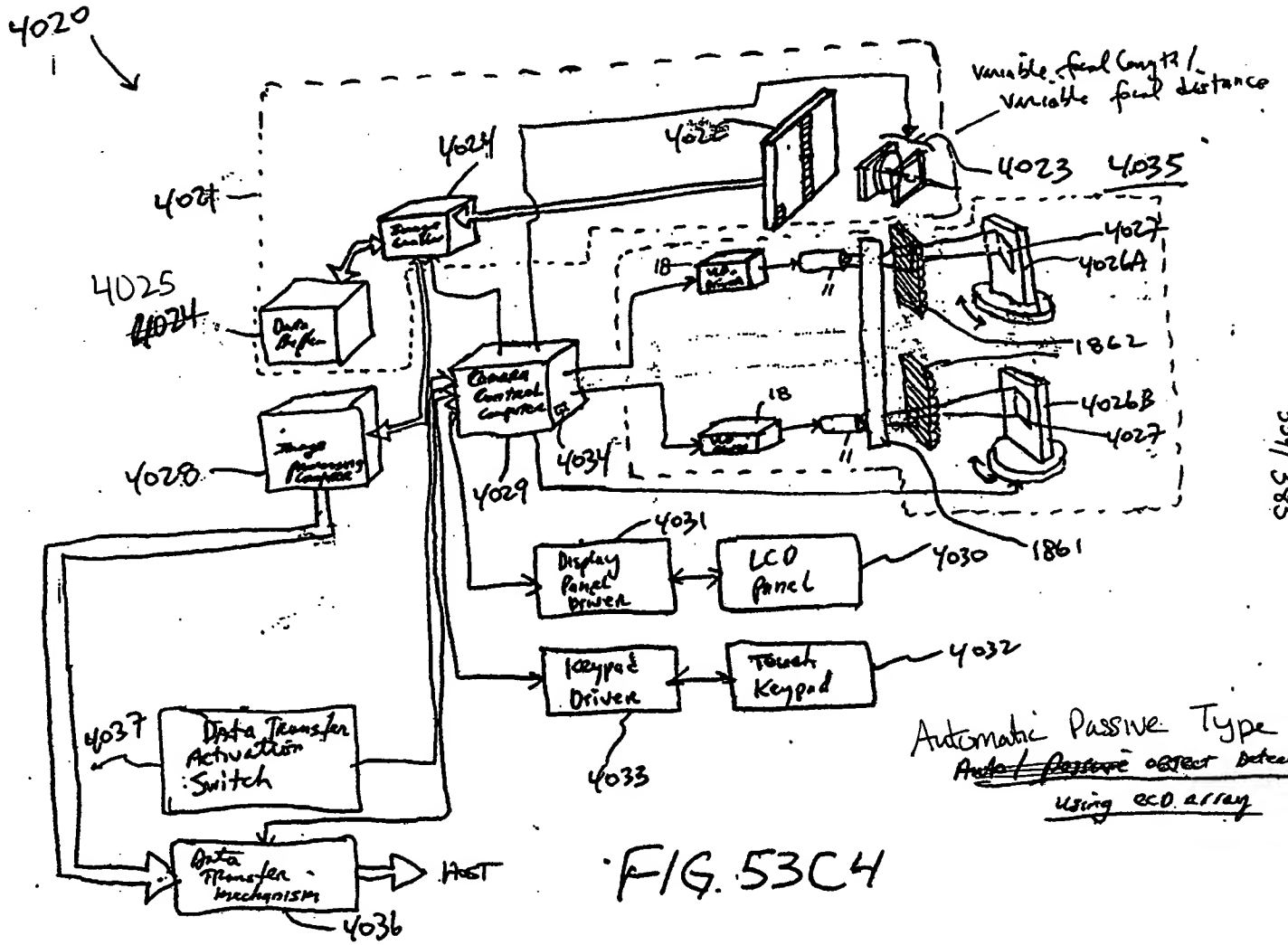


FIG. 53C4

Automatic Passive Type
~~Auto/Passive~~ object detection
using eco. array

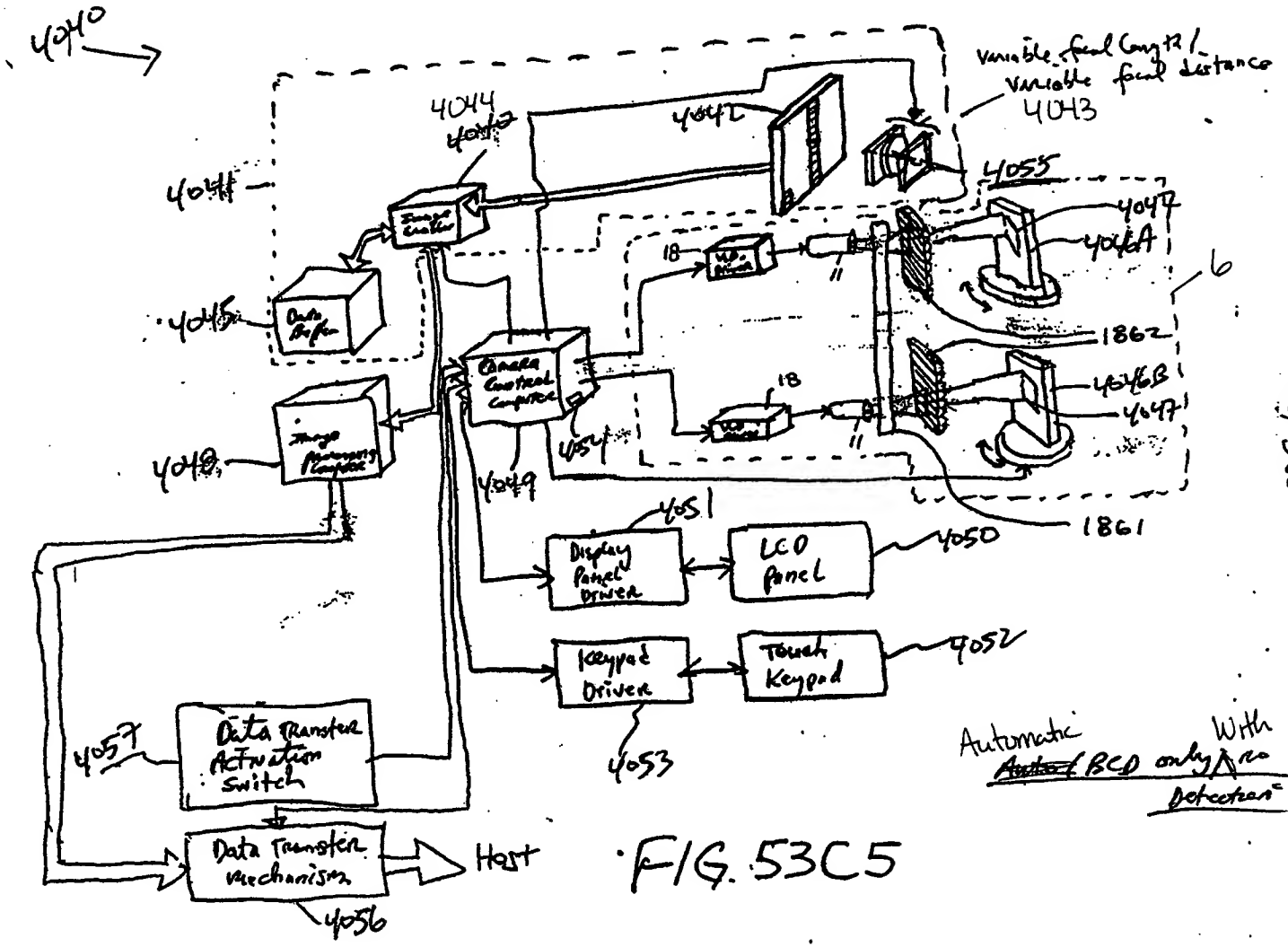


FIG. 53C5

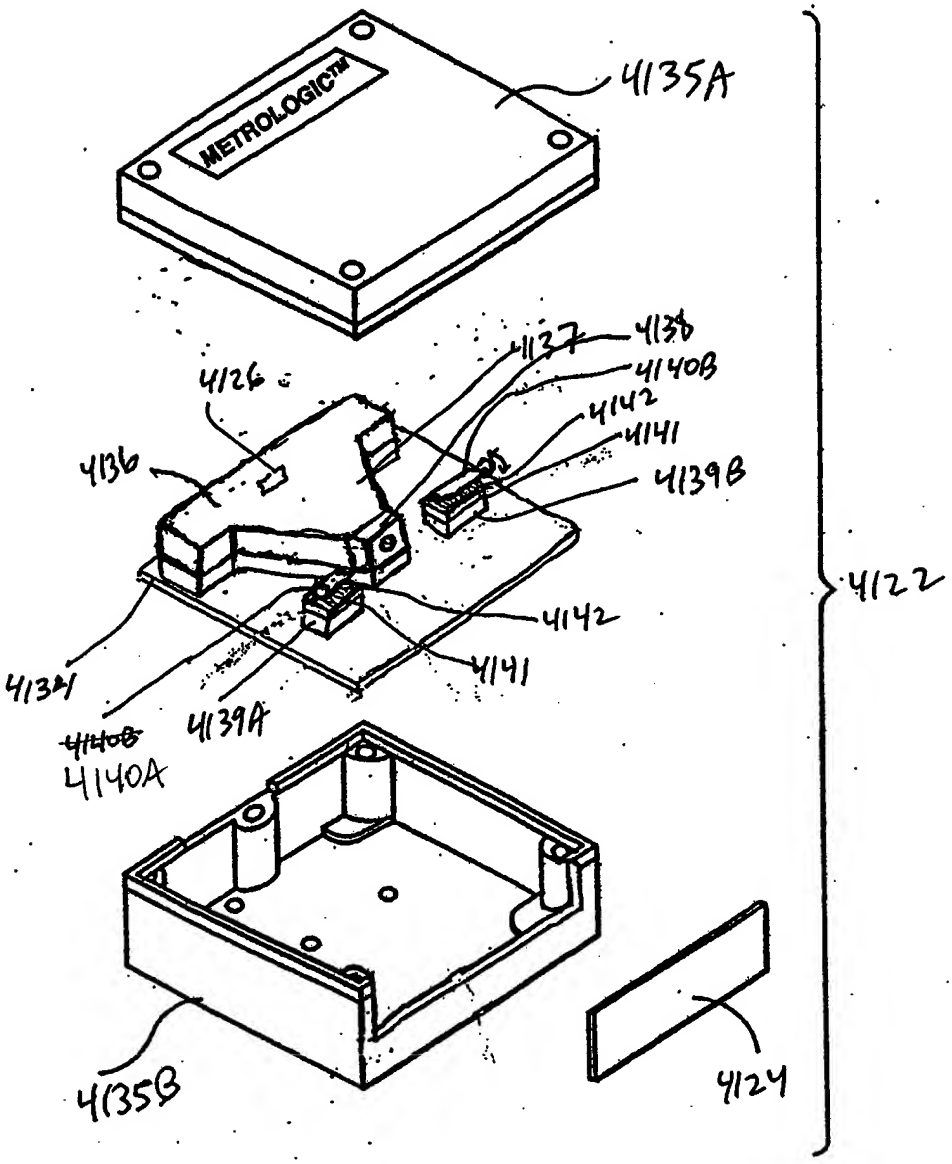


FIG. 56B

DM
Fig. 117A-7C

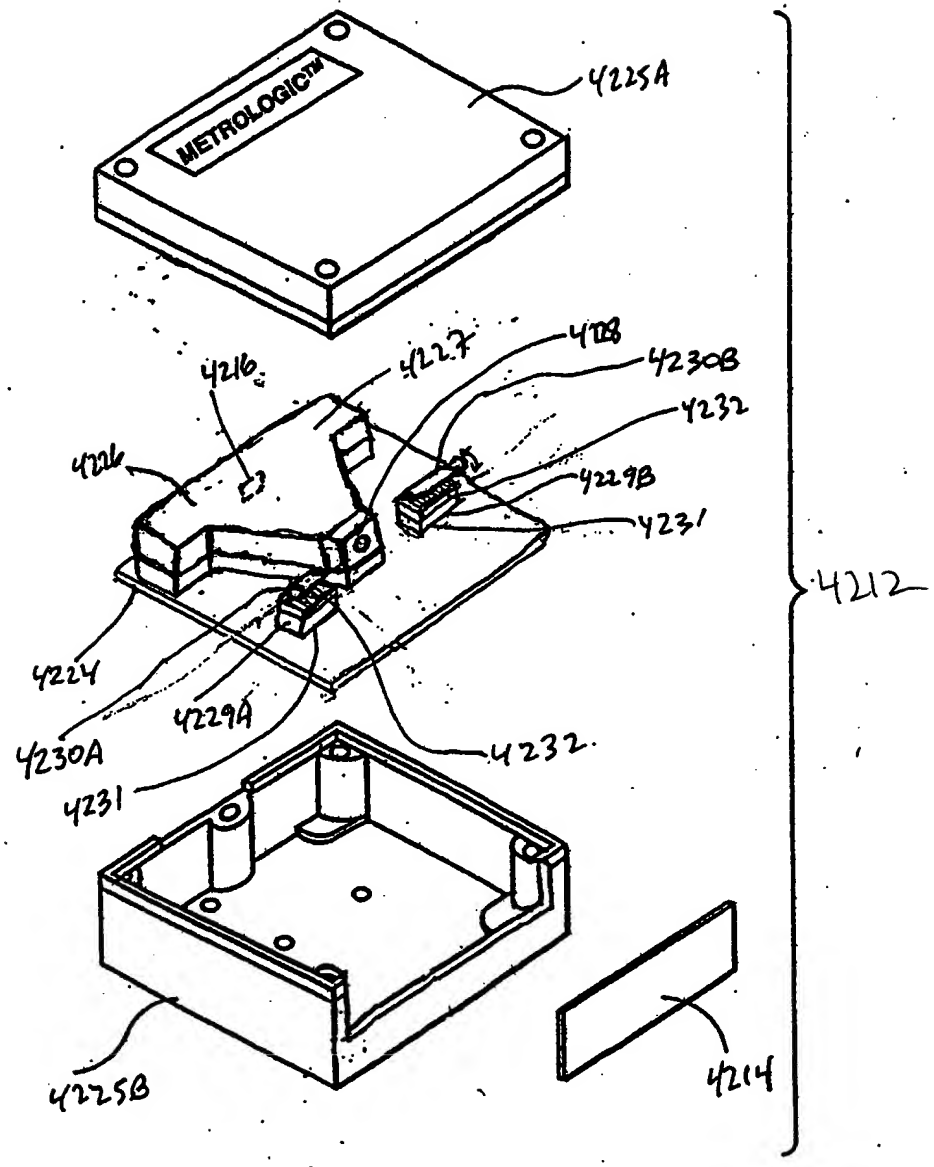


FIG. 59B

MCLD
Fig. 1I 15A-15B

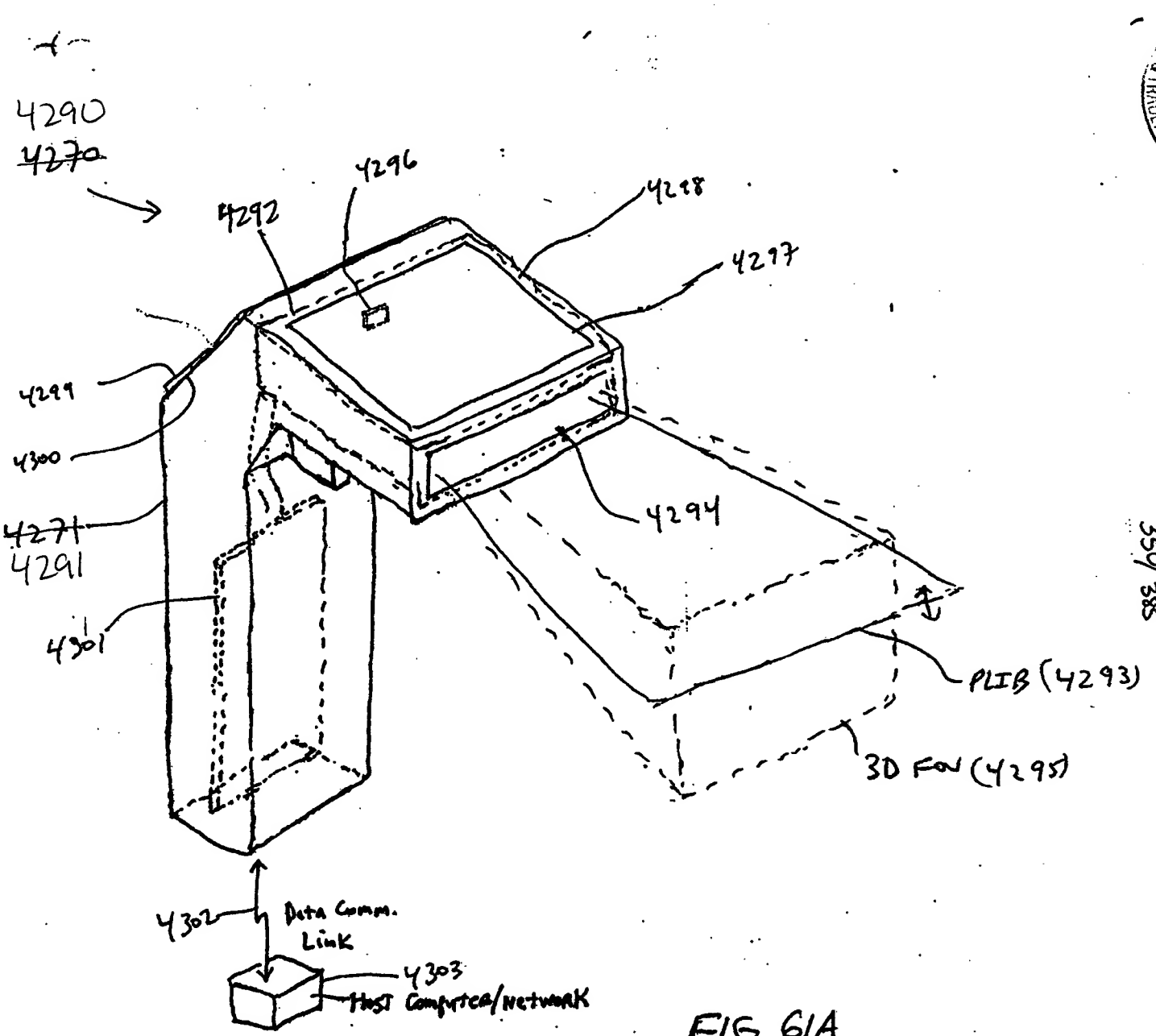


FIG. 61A

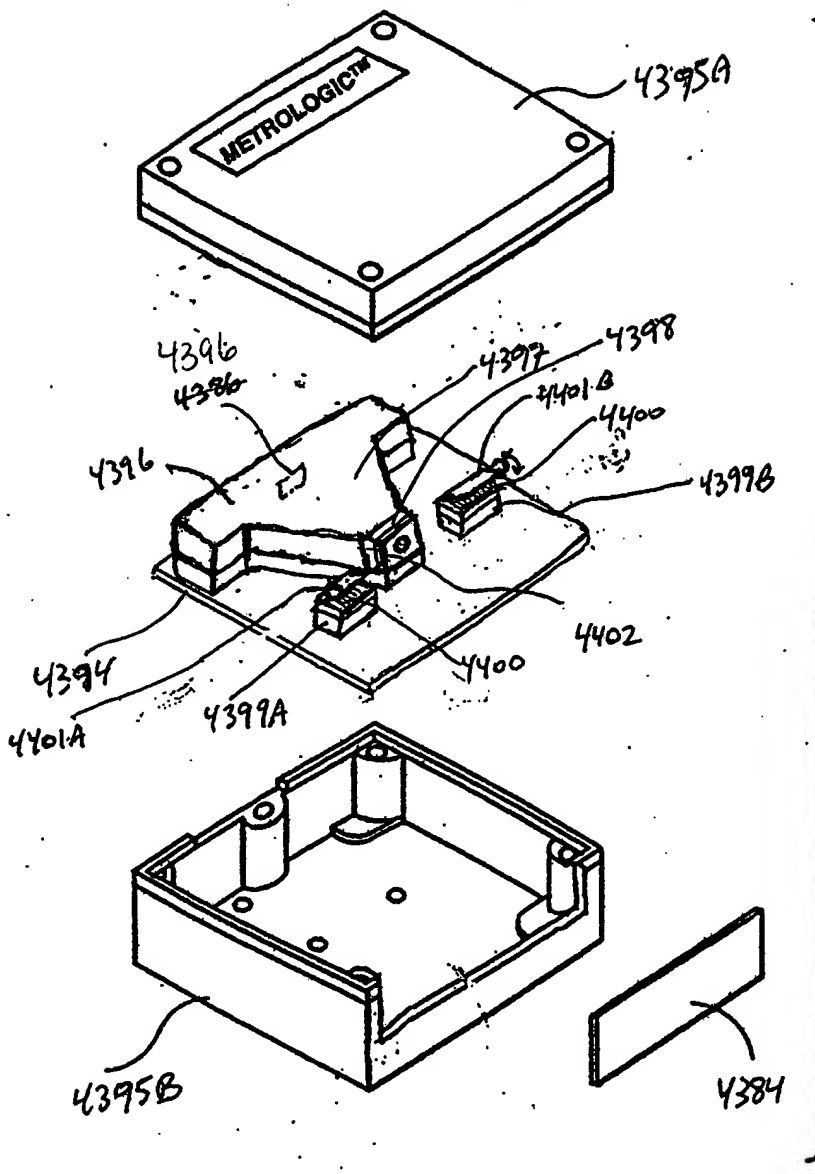
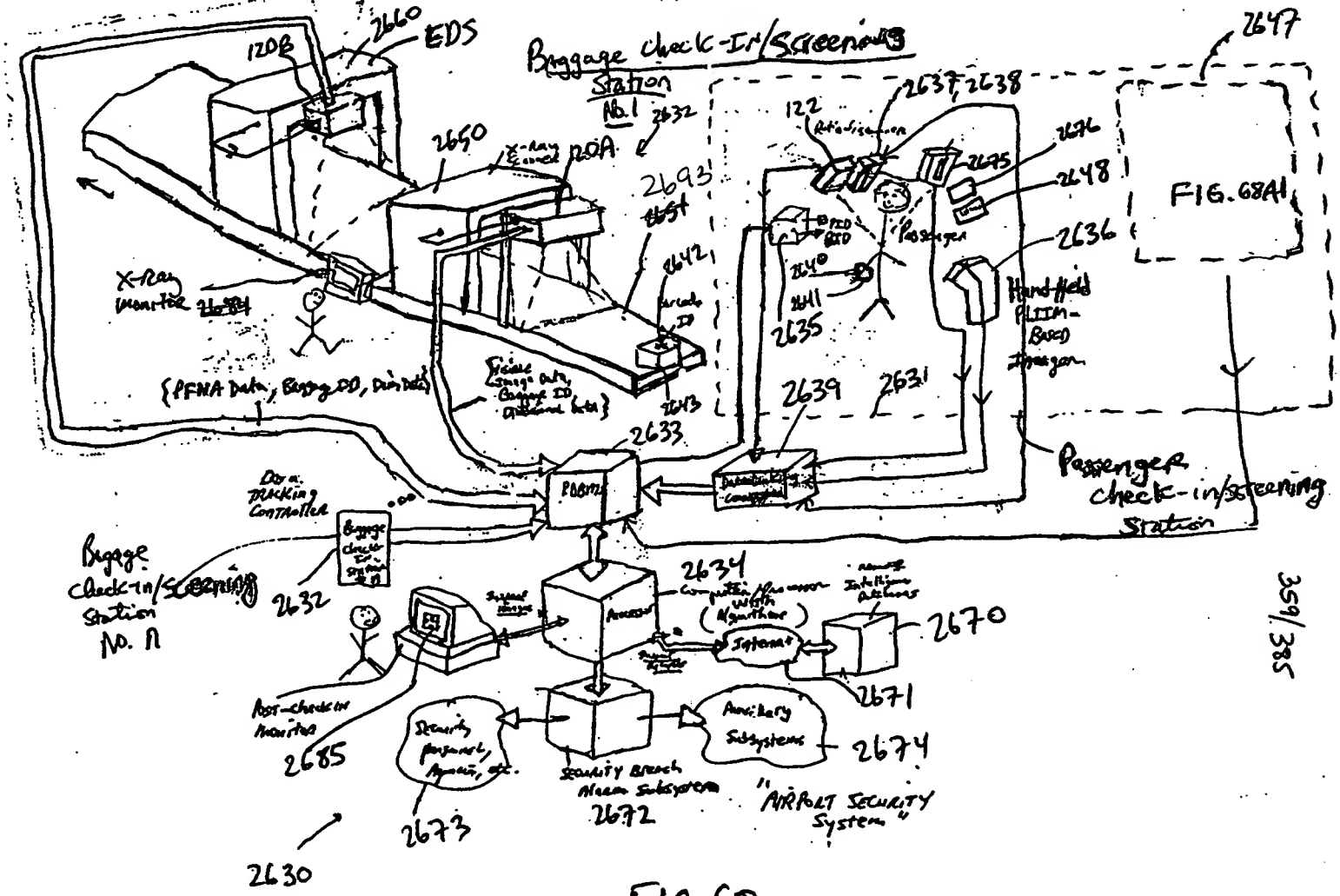


FIG. 64B

* E-optical shutter before IP Cover
Fig. 124A



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~~FIG 68.~~
PGS. 68-1 through 68-3

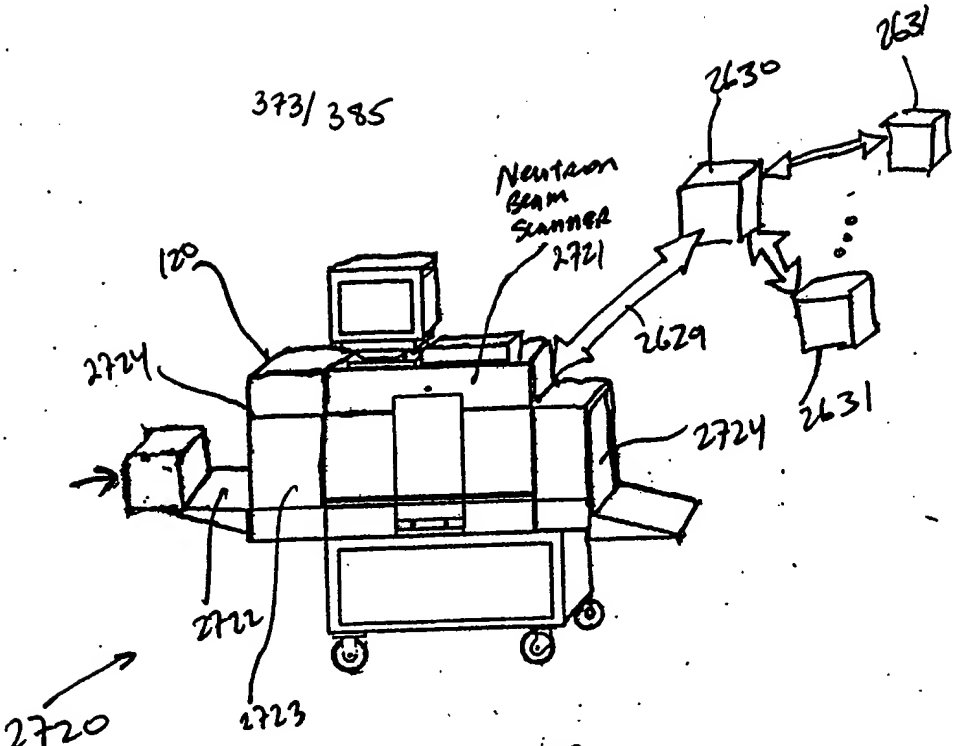

FIG 7IA

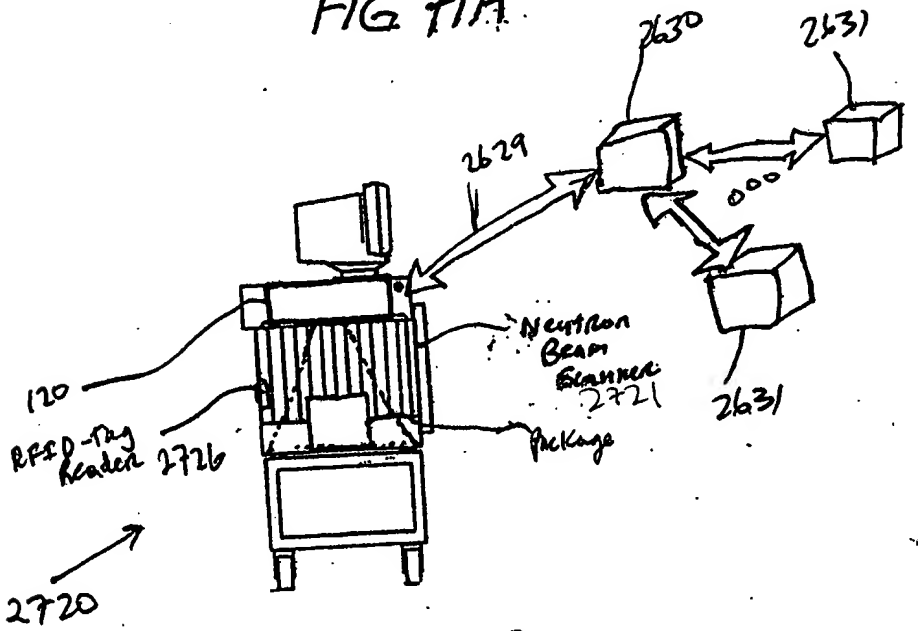

FIG 7IB